Summer 8-10-2019

Emergency Department Nursing Psychological Care (Early Crisis Intervention) for Adult Victims of Violent Crime: A Quantitative Study

Barbara Conn

EMERGENCY DEPARTMENT NURSING PSYCHOLOGICAL CARE (EARLY CRISIS INTERVENTION) FOR ADULT VICTIMS OF VIOLENT CRIME: A QUANTITATIVE STUDY

A Dissertation

Submitted to the School of Nursing

Duquesne University

In partial fulfillment of the requirements for

the degree of Doctor of Philosophy

By

Barbara J. Morrison Conn

August 2019

EMERGENCY DEPARTMENT NURSING PSYCHOLOGICAL CARE (EARLY CRISIS INTERVENTION) FOR ADULT VICTIMS OF VIOLENT CRIME

By

Barbara J. Morrison Conn

Approved April 25, 2019

Kathleen Sekula, PhD, PMHCNS, FAAN Professor of Nursing (Committee Chair)	Richard Zoucha, PhD, PMHCNS-BC, CTN-A, FAAN Professor of Nursing (Committee Member)
Joan Padgett, PhD, RN Associate Chief Nurse for Research and Education Dayton OH Veterans Affairs Medical Center (retired) (Committee Member)	Douglas Darbro, PhD, Professor, Director, Graduate Program Department of Mathematical Sciences Shawnee State University (Ad Hoc Committee Member)

ABSTRACT

EMERGENCY DEPARTMENT NURSING PSYCHOLOGICAL CARE (EARLY CRISIS INTERVENTION) FOR ADULT VICTIMS OF VIOLENT CRIME: A QUANTATIVE STUDY

By

Barbara J. Morrison Conn

May 2019

Dissertation supervised by Professor L. Kathleen Sekula

Recognition of the significance of early interventions and the importance of addressing psychological trauma for the victim of violence is of utmost importance for quality of life and the victim's future. The serious impact of psychological trauma on victims of violent crime supports further study to determine whether Emergency Department (ED) nurses assess this trauma and initiate early interventions and referral for ongoing psychological care. Nursing care, assessment and early intervention with victims of violent crime was the focus of this dissertation study.

A quantitative study, with a non-experimental, descriptive design employed retrospective chart reviews to determine whether ED nurses documented psychological trauma assessment and/or early intervention care for adult trauma victims of violent

crime. With convenience sampling, charts were reviewed to abstract data from emergency department records, nursing notes of adult survivors of violent crime. The Triage Assessment Scale (TAS) served to guide the data collection. Descriptive and inferential statistics were used to analyze the data abstracted from emergency department nursing notes.

The data analysis identified documented physical assessment and limited psychological assessment and referral, findings that are consistent and supported by previous research. Further research is needed to explore ED nursing care related to psychological assessment and early intervention for all victims of violent crime. Existing nursing research primarily focuses on victims of interpersonal violence and forensic nursing care. A need for the development of protocol and charting formats that support this care is identified in these research findings as an ongoing concern for ED nurses and victims of violent crime. The time for development of nursing early intervention protocols for care for all ED survivors of violent crime is now. The urgency and risks for these victims are too high to not address their psychological needs with a holistic approach in ED nursing care.

ACKNOWLEDGEMENT

My gratitude and special thanks to my father Carl Joseph Morrison for his inspiration and confidence, to my mother Martha Jane Seidel Morrison for always modeling honesty, integrity, and quiet encouragement. And to both of my parents for their kindness and belief in the worth of all. To my husband Ron, the real survivor of violent crime, for sharing, never forgetting and always being resilient. To my daughter Elise for her ever presence, knowing the value in life.

Very importantly, acknowledgement and thanks to my committee: Dr Kathleen Sekula for her guiding wisdom and forward direction, Dr Richard Zoucha for his calm and kind attention in all things, Dr Joan Padgett for her positive, clear, and refreshing view, and Dr Douglas Darbro for his unwaivering interest and curiosity in finding the importance. To Saint Mary's Medical Center, Clark Memorial Library Shawnee State University, and Mr and Mrs Ralph Melcher for significant participation in this study, and lastly to many who have always been there and will continue to be so meaningful in my life.

Table of Contents

LIST OF TABLES

Chapter 1
Introduction

Background

Early crisis intervention with adult trauma victims of violent crime is explored in this quantitative study. The impact of violent crime has devastating effects persisting beyond the emergency admission with unrecoverable costs including reduced quality of life, pain, and suffering that can never be never be fully measured. The injuries not visibly seen, the extreme psychological trauma sustained by victims after a traumatic event, places them at risk for long term mental health issues including Post Traumatic Stress Disorder (PTSD) and comorbidities (Bonanno, 2004). Limited research and considerable debate is identified in literature regarding the timing most effective for implementing crisis intervention for victims of violent crime (Ai & Park, 2005). While research on emergency nurses and victims of violence exists, psychological assessment and early intervention for victims of violent crime by emergency department (ED) nurses is minimally addressed (Rahmqvist Linnarsson & Benzein, 2014). Existing nursing research primarily focuses on victims of interpersonal violence and forensic nursing care. Further research is needed to explore ED care provided by nurses related to psychological assessment and early intervention for all victims of violent crime.

With a rising incidence of violence in the United States (Green & Roberts, 2008), victims of violent crime are identified as a growing population seeking care in emergency departments (Department of Justice [DOJ], 2013). Because of the prevalence of violence in our society, nurses frequently care for victims (American Association of Colleges of Nursing, 1999). The emergency department (ED) is often the initial point of entry for care provided to victims of violence (Fulton & Assid, 2006). The ED nurse can be a vital link between the victim and care including early interventions as well as supportive resources that could

influence health outcomes and resilience (Emergency Nurses Association [EMA], 2014). In addition to caring for physical trauma, assessing the psychological impact of trauma is of importance (McBrearty, 2011). Effective early crisis intervention is dependent on accurate assessment of psychological needs (Myer & Conte, 2006). With limited research that includes psychological care for all victims of violent crime, gaps in the literature exist specific to emergency department nursing early intervention practice. Understanding whether emergency nurses assess the psychological needs of adult victims of violent crime and subsequently determine effective early intervention strategies for victims is significant for holistic care.

Improved awareness of early crisis intervention can promote opportunities to reduce the severity of psychological reactions, reduce the chance of subsequent PTSD, and increase the potential for victim recovery (Bonanno, 2004). Furthermore, with ongoing research, theoretical clarification and identification of the ways in which individuals transform stressful experiences into potential for increased growth may contribute to best nursing practice for victims of violent crime *(*Ai & Park, 2005*).* Crisis intervention theory when applied to nursing care with victims of violent crime can support preventive early intervention care. ED nurses are in a key position to assess the actual and potential risk of psychological trauma with victims of violent crime (McBrearty, 2011). Holistic nursing care for all victims, beyond the established emergency forensic protocols for interpersonal violence, would benefit the increasing numbers of victims of violent crime seeking emergency care. This is an opportunity for nursing evidence to advance understanding and practice strategies for individuals in adverse life situations, to promote quality of life and human resilience.

Limited nursing research exists as well in the literature regarding care of victims of violence beyond the established forensic protocol for victims of interpersonal crime. The

perspective of ED nursing practice studies focuses either on interpersonal violence or are conducted in other countries, not representative of the increasing prevalence of violence in the United States nor reflective of this specific nursing concern for all victims of violent crime. Current research addresses assessment and intervention with both women and children victims of interpersonal violence. However, there is little to no ED nursing research regarding adult victims of other violent crimes. This study will address knowledge gaps in the literature related to ED nursing assessment of psychological trauma of adult victims of violent crimes. Developing a specific early crisis intervention approach for ED nurses is significant. Nursing theory suggests the importance of the nurse's role in enhancing the psychological well-being of trauma clients (Benner & Wrubel, 1989; Newman, 2002; Polk, 1997; Tusaie & Dyer, 2004; DOJ, 2012).

This research will explore the ED nurse's role in assessing the psychological needs of adult victims of violent crime, early interventions with holistic nursing care. Data collected from ED nurses' documentation will focus on their care with victims of violent crime. ED nurses' documentation may identify and clarify whether emergency department nurses assess and document the psychological needs of adult victims of violent crime. Retrospective ED nursing chart review may confirm the need for developing standard early intervention protocol and education for ED nursing practice. This nursing research can support empirical evidence for Emergency Department nurses who care for all victims of violent crimes.

Chapter 2

Literature Review

Introduction

This literature review will focus on the timing of early crisis intervention in preventing or minimizing long term psychological issues in adult victims of violent crime. Given the personal and societal costs of violence, the healthcare response to victims of violence is undeniably significant. Holistic care for victims of violent crime will be reviewed from the nursing perspective of current practice in the emergency department, focusing on the question of the nursing role in early interventions and psychological care.

The optimal time for intervention for victims of violent crime, to minimize the response psychological trauma and encourage resilience, is explored. Studies on victims of violent crimes, Post Traumatic Stress Disorder (PTSD), resilience, and Emergency Department nursing care with victims of violent crime are reviewed to develop a framework reflecting the evolution of research on early psychological interventions and the state of current research. This review will explore how individuals react to the process of victimization, focusing on adult victims of violent crime, their support systems, risks for long term stress and response to interventions. Violence and violent crime trends in the United States, the history of PTSD and resilience are presented. The relationship of violence and crime severity as well as the evidence for and against early interventions to reduce or prevent PTSD was reviewed. Lastly, the implementation of early psychological interventions was explored with discussion of the optimal time and emergency nursing practice strategies to support victims of violent crime to enhance quality of life.

Review Methodology

Databases used to search for relevant research studies included EBSCOhost, ProQuest Research, Dissertation Abstracts, and OhioLINK. Additionally, online journals and organizational websites were reviewed for research articles as well as interlibrary loan for textbook access. In selecting literature to review, dates between 2000 and 2014 were considered for the most current research with some older studies and articles chosen that reflect history, background information, and intervention trends. Over 50 articles were initially retrieved including descriptive articles, systematic reviews, meta-analyses, and randomized controlled trials reporting clinical outcomes. The search process used the keywords: *violence*, *violent crime*, *home robbery*, *psychological trauma*, *PTSD*, *early interventions*, *psychological interventions*, and *resilience*. The search was restricted to those articles written in English and those including adults ages 18 and older.

Victims

An overview of victims is presented focusing on adult victims' reaction(s) to violence. Experiencing a criminal victimization, whether violent or nonviolent, is among one of the most stressful human experiences. Emotional stress has been identified as a central and dominant response of victims of crime ("National Organization of Victims Assistance," 2011). Current theories indicate that the link between victimization and reaction relates directly to crime severity (DOJ, 2012).

The concept of the victim is found in many cultures dating back to ancient civilizations and has evolved from one of blaming the victim to recognizing the victim as a survivor (DOJ, 2012). Early religious rituals, epics, and mythology offer numerous examples of symbolic victim sacrifices. In primitive cultures, law and order originated with the individual before

societies created law or rules. Throughout history, the relationship of criminal and victim has reflected a struggle for power and survival, with the right of the individual victim for revenge (Stevens, 2003).

The term *victimology* was introduced by Benjamin Mendelsohn in 1947 from a Latin word 'VICTIMA' and a Greek word 'LOGOS'. Mendelsohn is one of the first theorists whose focal point was the victim. He studied victims on the basis of their contributions to crimes proposing there was a personal relationship between the victim and offender as well as postulating several classifications of victims (Green & Roberts, 2008). The concept of *victimology* was heavily influenced by Freudian psychology, arguing that victims desired to be victimized and were in some way responsible for the offense (Mendelsohn, 1963; Von Hentig, 1948). Original victim theories involved blaming the victim for horrific acts by a perpetrator, have since been rejected by most scholars and replaced by the view of victims as anyone caught up in an asymmetric relationship or situation (Stevens, 2003). Multiple theories of victims and victimization have since emerged, leading to the current focus on victim centered rights. Today, the concept of victim has expanded to include any person who experiences injury, loss, or hardship due to any cause (Stevens, 2003). Victim references now include the image of an individual who has suffered injury and harm by forces beyond their control (Stevens, 2003). Victims are currently defined by the United States Department of Justice (2011) as persons who have been injured by the criminal acts of perpetrators. Violent victimization includes rape or sexual assault, robbery, aggravated assault, and simple assault (Office of Justice, 2010).

Violent Crime

Violent crimes are defined in the Federal Bureau of Investigation's (FBI) Uniform Crime Reporting Program as those offenses that involve force or threat of force (Federal Bureau of

Investigation [FBI], 2009). In the FBI's Uniform Crime Reporting Program (2011), examples of violent crime include four offenses: murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault. Physical attack and robbery are specifically mentioned in the Diagnostic and Statistical Manual of Mental Disorders (DSM) (American Psychiatric Association [APA], 2013) as types of stressors that are capable of producing PTSD and long term psychological trauma.

The United States (U.S.) has the highest violent crime rate of any industrialized nation (Green & Roberts, 2008). The National Crime Victimization Survey (2012) by the Bureau of Justice Statistics reported that U.S. violent crime is on the rise for the second consecutive year following a two-decade decline with U.S. citizens now more likely to be victims of violent crime than to be involved in a traffic accident. Approximately 13 million people (nearly 5% of the U.S. population) are victims of crime every year, and of that, approximately 1.5 million are victims of violent crime (Green & Roberts, 2008). Of all victims of violence, 29% suffered an injury and 5% were seriously injured (DOJ, 2011).

Violent and criminal victimization is a serious public health issue. The effects are pervasive and harmful and involve violence-related trauma, societal costs such as mortality, medical and mental health treatment costs, reduced productivity, and impaired functioning with long term comorbidities. Medical costs for the treatment of victims are 2.5 times higher than for the costs of non-victims (Green & Roberts, 2008).

In a study of both violent and non-violent victims of crime, Norris, Kaniasty, and Thompson (1997) examined the psychological consequences of crime in a longitudinal study using a telephone survey. This research was based on a randomly selected population in Kentucky. In this study, the authors made distinctions between activators (the crime), reactions

(fear, avoidance), consequences (psychological symptoms: depression, bodily symptoms, hostility, anxiety and phobic anxiety), and moderators (characteristics that change the relationship between activators and reactions and consequences). Symptom changes were assessed when new factors such as life stress or new crimes were experienced. Approximately 50% of victims of violent crime reported moderate to extreme distress. Extreme levels of distress, including depression, hostility, and anxiety were reported by 25% of victims of violent crime and another 22% to 27% reported moderate to severe problems. Victims of violent crime reported the highest level of distress (Norris, Kaniasty, & Thompson, 1997).

The study results indicated that victims of violent crime were the most distressed when compared to victims of non-violent crime. Severity of violent victimization affected distress both directly and indirectly by impacting safety, esteem, and trust. In contrast, non-violent crime severity was mediated by safety, esteem and trust and subsequently had no direct relationship to victims' distress. This emphasizes the traumatic nature of violent crime over non-violent crime and that any victimization has a negative effect. Severity of the violent crime and victimization does play a major role in subsequent levels of symptomatology. Being a victim of crime is an external and unpredictable stressor that is far-reaching. Specific crime characteristics (severity, use of violence, use of a weapon, use of threat), victim characteristics (coping skills, abuse history, personality characteristics), and system characteristics (reaction of officials, help received) can affect the victim's distress level (Norris et al., 1997). Severity may be the important issue in looking at crime victim's reactions, not the specifics of the crime. It is through severity that the victim is traumatized and experiences distress, with some significant recovery achieved for most crime victims between one and three months after the crime (Norris et al., 1997).

Green and Diaz (2007) studied predictors of emotional stress experienced by crime victims within 30 days of the crime event. The authors described the common effects associated with criminal victimization in the context of intense distress and discussed the theoretical implications of well-being in the coping process. In this cross-sectional study, a sample of 175 crime victims, including 86 violent and 89 nonviolent, were interviewed. Emotional stress, coping strategy, social support, and individual characteristics were assessed using multiple regression analyses and accounted for more than 74% of the variance. Statistically significant differences in experiences were identified in the initial aftermath of the crime event with victims of violent and nonviolent crime. Gender, type of crime experienced, coping strategy, and social support significantly predicted emotional stress among crime victims. Victims of violent crime showed more emotional stress than victims of nonviolent crimes. Study generalizability was restricted by sampling limitations, all subjects were self-selected and self-reported the crime to authorities. Findings identified the importance of individual factors in considering treatment methods for clinical interventions specific to crime victims. The authors concluded that psychological emotional stress is a lasting effect of criminal victimization with implications for mental health support (Green & Diaz, 2007).

Parsons and Bergin (2010) reviewed the research on the impact of criminal justice involvement and secondary victimization on the mental health of crime victims**.** Their review of 64 studies from 1982 to 2007 identified common legal practices, both positive and negative, that may exacerbate the trauma of the original crime. Victims of violent crime perceived the legal system as traumatizing with negative court experiences, including a lack of concern and insensitive treatment. Chronic or repeat victimization can further deepen distress and associated psychological symptoms. In contrast, positive contact with the justice system can allow victims

the opportunity to come to terms with their experiences by facing the attacker. A court settlement can be a healing process, providing a public recognition of the harm that victims have suffered and legitimizing their need for support (Parsons and Bergin, 2010).

Research limitations included a scarcity of reliable studies that seek to quantify the experiences of crime victims, outdated studies and methodological issues. Large-scale, experimental design or carefully structured quasi experimental studies are needed that can assess if mental health disparities in victims who choose to report crimes are the result of contact with the criminal justice system or underlying differences. Increased awareness, by the criminal justice system of the potential negative impact of their actions, with efforts to minimize secondary victimization by referral to support systems, can create a positive view for the victim (Parsons & Bergin, 2010).

A reoccurring theme throughout the literature was the importance of societal and community support related to how victims of violent crime cope. With an overall increasing awareness and acknowledgment of victims, growing support for victim's rights, including reparation and restorative justice exists. Research over the last three decades has found that an individual's social support system significantly impacts psychological well-being and psychosocial functioning. Whether real or perceived, social support acts as a buffer against the effects of stress or, has a positive effect on the individual's overall functioning (Greene & Diaz, 2007).

Alvidrez et al. (2008) studied active support services provided for crime victims that could reduce disparities in their access to compensation funds. In a randomized trial, 541 injured adult victims of violent crime seeking emergency medical treatment at a level I trauma center in San Francisco, were randomly assigned to receive comprehensive psychosocial services or usual

community care. Victims assigned to comprehensive psychosocial services, the Trauma Recovery Center, were offered case management from the victim compensation program, application assistance, housing support, financial entitlements, and health insurance, as well as assistance with law enforcement and social service agencies. Trauma Recovery Center services were offered initially for 4-months, with an additional 4-months if needed. Victims assigned to usual community care received initial information about the victim compensation program, the San Francisco Victim Witness Assistance Center, and psychosocial services. All study participants, when recruited, were offered information about the victim compensation program and possibly received additional information from the criminal justice system or hospital staff during initial contact. All victims were followed for 12 months.

Using logistic regression analysis, data from the injured crime victims was compared between those receiving comprehensive psychosocial services and those receiving usual community care. Results showed that victims receiving comprehensive services were much more likely to apply for victim compensation than were victims receiving usual community care. Comprehensive services decreased disparities that were associated with younger age, lower levels of education, and homelessness. Active outreach and assistance can address disparities in access to victim compensation funds for disadvantaged populations and should be offered more widely to victims of violent crime. Assessment of perceived social support and actual social support available to victims of violent and non-violent crime was considered integral to their well-being (Alvidrez et al., 2008).

This study supports further research of the victim's needs from psychological trauma and ED early interventions. With nursing client assessment, acknowledgment of victims of violent crime in the ED could ease access to intervention services and facilitation of referrals. The ideal

ED would provide this opportunity for assessment, interventions, and referral for psychological trauma, reducing and preventing risk for PTSD.

Victims of violent crime access to comprehensive services is critical because of costs, both tangible and intangible. Over $17 billion is projected annually in medical and mental health care expenses for surviving victims of violent crime, with an additional $330 billion in unrecoverable costs including reduced quality of life, pain, and suffering (Sharpiro & Hassett, 2012). Psychological recovery from criminal victimization can be impaired by financial stress and inadequate material resources preventing a return to a pre-victimization level of functioning. Financial trauma from the victim's experience is a stronger predictor of PTSD than the victimization experience itself (Ozer et al., 2003). Social support for victims encourages recovery from psychological trauma and is a significant aspect of interventions through access to reparation and restorative justice services.

"Experiencing a criminal victimization is one of the most stressful human experiences while finding more humane and effective ways to assist the thousands of crime victims in the country is one of the most serious problems of our time" (Green & Pomeroy, 2007, p. 63). By understanding the needs and stresses confronting survivors, sensitive and accessible support services might be provided to victims of violent crime. An integral component of victim assistance is clearly the provision of information. Green and Pomeroy (2007) examined the effects of perceived and received social support on the initial levels of distress, coping strategy, and subsequent well-being of crime victims. A multivariate model of the stress-coping process for crime victims was examined and patterns of psychological correlates with subjective well-being and social support were investigated.

To assess the relationship between the crime event and emotion-outcome coping process, the authors used a cross-sectional survey to collect self-reported data from personal interviews with 175 crime victims. Personal interviews were conducted with 86 victims of violent crime and 89 victims of non-violent crime. Because of practical limitations, some victims were deceased, a non-probability purposive sampling strategy was used. Relatives of the deceased crime victims were interviewed as part of the violent crime category. Data was collected via semi-structured, face-to-face interviews using standardized measurement instruments and open-ended questions.

Green and Pomeroy's findings support the development of interventions designed to diminish the negative impact of crime and indicate that social support acts as a moderator on victim distress levels. A direct relationship between levels of perceived social support, anger, and anxiety was identified. An inverse relationship existed between social support, emotion-focused coping, and avoidance-oriented coping, with a significant positive relationship between social support and problem-focused coping. Further analysis indicates that the potential buffering properties that social support has on victims of violent crime may mediate the stress and coping process. The findings suggest that lack of social support takes an emotional toll on crime victims. Efforts are encouraged that address ways to support victims' rights and simplify the ways in which victims receive those rights. Additionally, the findings encourage that social service agencies be considered, that social support has been shown to have a positive relationship encouraging victims to seek professional help (Green & Pomeroy, 2007). Including social support as an integral part of interventions for victims is crucial for recovery to diminish the negative impact of crime.

After decades of decline, violent crime is increasing to new highs with many victims and subsequent trauma both acute and long term (Sanburn, 2015). The impact of violent and criminal victimization is pervasive, harmful, and a very serious health issue with the risk of PTSD. Studies of victims and violent crime identify and reflect the victims' physical, psychological, social needs and risks. Severity of the violent crime and victimization plays a major role in subsequent levels of psychological symptoms with an urgency to access appropriate interventions, lessening the time the injured must cope and delay engagement (DOJ, 2013). Consequently, interventions designed to diminish the negative impact of violent crime and ensure quality of life for victims is a major challenge for health providers and policy makers. Early interventions, such as nursing assessment focusing on psychological trauma for victims of violent crime, could become a standard protocol in the ED to identify and support those at risk, providing holistic care to prevent long term mental health issues.

Post Traumatic Stress Disorder (PTSD)

The process of victimization can have profound psychological effects on the victim, their support network and society in general. The impact of violent and criminal victimization is pervasive, harmful, and a very serious health issue with the risk of Post Traumatic Stress Disorder (PTSD). Reliving a traumatic event with haunting memories, possibly for years, is one of the long-term psychological risks for victims of violent crime. PTSD is a growing epidemic, affecting millions 7.7 American adults annually, with an increasing public interest and awareness of victims, violence, and the urgency for prevention (NIH, 2009). PTSD is now considered in relationship to many trauma induced experiences including violent crime. There has been a literal explosion of information on this psychological disorder both in scientific and popular literature. Thousands of journal articles have been written on PTSD giving rise to several specialty journals such as *The Journal of Traumatic Stress* and *PTSD Research Quarterly*. In the last 30 years, many books have been published and major films produced depicting individuals who develop PTSD while trying to cope with traumatic events. A strong interest in how people deal with traumatizing experiences clearly exists (Beall, 1997).

Throughout history, there is evidence of interest and concern in the human response to adverse conditions and threats. Dating back to medieval times, a Knight's story (Geoffroi de Charny) depicts and strongly resembles what is now known as PTSD symptomatology. During the Civil war Da Costa's Syndrome was a description of response to fear, and in World War I the terms *shell shock* and *fight or flight* emerged (Cannon, 1914). With World War II, *battle fatigue* became a familiar term that prevailed until the Viet Nam era when the term PTSD was introduced. Once associated only as a psychological disorder with the Vietnam War, PTSD gained prominent attention with the soldiers returning from the wars in Iraq and Afghanistan.

Others argue that the origins of PTSD can be found in the hysteria research conducted by Sigmund Freud and Pierre Janet in the late 1800's (Friedman, Keane, & Resick, 2007).

The diagnosis of PTSD from The Diagnostic and Statistical Manual of Mental Disorders (DSM) refers to a characteristic set of symptoms that develop after exposure to an extreme stressor. PTSD is a relatively new diagnostic category in the history of psychology. The diagnosis of PTSD first appeared in 1980 in the internationally accepted authority on PTSD, the DSM III (APA, 1980). At that time, the DSM had a limited view of what could cause PTSD, defining it as developing from an experience that anyone would find traumatic, leaving no room for individual perception or experience of an event. This definition was expanded when the DSM III was revised in 1987, and the DSM IV (APA, 1994) provided even broader criteria and again in the DSM-IV-TR (2000). The syndrome was classified in 1992 in the International Classification of Diseases-10 (ICD-10, 1992). The diagnostic criteria for DSM 5 (2013) more clearly details a traumatic event, deleting DSM IV criteria that proved less useful in predicting the onset of PTSD such as: language stipulating an individual's response to the event, intense fear, helplessness or horror. DSM 5 focuses more attention on the behavioral symptoms that accompany PTSD and proposes four distinct diagnostic clusters instead of three: re-experiencing, avoidance, negative cognitions, and mood and arousal. In the DSM 5**,** Posttraumatic Stress Disorder (PTSD) is addressed as a trauma and stress related disorder~~s~~, a change from DSM-IV, which addressed PTSD as an anxiety disorder (APA, 2013). The DSM 5 (2013) requires that a disturbance continue only for more than a month and eliminates the distinction between acute and chronic phases of PTSD. Post traumatic stress usually has a very clear point of onset, the traumatic event, and is characterized by a failure of the normal response to resolve the distress. These characteristics distinguish PTSD from other mental health diagnoses, clarifying the

prospect of early interventions (Zohar, Juven-Wetzler, Sonnino, Cwikel-Hamzany, & Balaban, 2011).

Large-scale epidemiological research has indicated that PTSD is among the most prevalent psychiatric diagnoses for survivors of violent or traumatic events (Friedman, 2014). Approximately 60% to 90% of individuals in the U.S. experience one potentially life-threatening event or trauma during their lives. Data from national probability samples place the lifetime prevalence of PTSD at approximately 6.8% in the general population, among men at 3.6%, and among women at 9.7%. Although the prevalence of PTSD is relatively low, understanding interventions are important due to the extreme psychological trauma sustained by the victim and the risk for long term mental health issues and other comorbidities (Gradus, 2010).

Traumatic and posttraumatic variables commonly measured and most associated with the development of PTSD were identified from two large meta-analyses. These variables included trauma severity, traumatic stress symptoms, perceived life threat, dissociation, reported lack of social support after the traumatic event, and subsequent life events (Brewin, Andrews, & Valentine, 2000; Ozer, Best, Lipsey, & Weiss, 2003). PTSD symptoms usually present in the first month after the traumatic event, but in less than 15%, there may be a delay of months or years before symptoms appear (McNally, Bryant, & Ehlers, 2003). Post-traumatic stress disorder shows substantial natural recovery in the initial months and years after a traumatic event. Considering a high proportion of trauma survivors will initially develop symptoms of PTSD, a substantial proportion of these individuals recover without treatment in the following years, with a steep decline in PTSD rates occurring in the first year (Kessler & Sonnega, 1995). However, at least a third of the individuals who initially develop PTSD remain symptomatic for three years or longer and are at risk of secondary problems such as substance abuse (Kessler & Sonnega,

1995). This raises the important questions of when treatment should be offered after a traumatic event and how people who are unlikely to recover on their own can be identified.

Gilboa-Schechtman and Foa's research (2001) supports using early intervention with a phenomenon called peak reaction, the point in which the victim experiences the strongest symptoms. Their research on patterns of recovery from sexual and nonsexual assault used intraindividual analysis with data from two studies of female victims. In Study One, victims (n = 101) underwent 12 weekly assessments with measures of posttraumatic stress disorder (PTSD), depression, and anxiety. In Study Two, victims (n = 108) underwent monthly assessments using the same measures. Using intraindividual analysis of change, the effects of trauma type and time of peak reaction on long-term recovery were compared. In both studies, results showed that initial and peak reactions of rape victims were more severe than were those of nonsexual assault victims on all measures of psychopathology. Victims with delayed peak reaction exhibited more severe pathology at the final assessment than did victims with early peak reaction. Results of Study Two indicated a slower recovery rate from sexual assault than from nonsexual assault; in Study One a similar pattern of recovery emerged (Gilboa-Schechtman & Foa, 2001).

Delayed peak reaction was related to increased symptoms. Victims whose peak reaction occurred shortly after the assault had lower levels of depression and PTSD than individuals whose peak reaction occurred later. The authors theorize that delayed peak reaction may be related to a delay in engagement, that has implications for chronic PTSD and early interventions (Gilboa-Schechtman & Foa, 2001). Victims' delayed peak reaction and engagement was consistent with more severe pathology and assault. Again, severity may be the important issue in looking at crime victims' reactions, not the specifics of the crime. Clinicians must be mindful of

the effects of crime victimization and take measures to respect victims and their wishes to minimize further symptoms and secondary victimization.

Delayed engagement and victims' severe reactions are reflected by the traumatic memory, a distinct behavioral symptom and core pathology of PTSD, and by experiential avoidance, a secondary phenomenon. Transition of the traumatic memory from unstable to consolidation prolongs re-experiencing and avoidance (Zohar et al., 2011). Psychological interventions that emphasize the reduction of experiential avoidance may interrupt memory consolidation and prevent or improve symptoms of PTSD. The ability to overcome factors such as avoidance, that place the victim at risk for negative outcomes, encourage positive psychological adjustment and support the opportunity for resilience (Thompson, Arnkoff, & Glass, 2011).

Reliving a traumatic event with haunting memories, possibly for years, is one of the long-term psychological risks for victims of violent crime. As with violence, PTSD is a growing epidemic that affects millions of American adults annually, with gaining public interest and an urgency for prevention. Physical attack and robbery are specifically mentioned in the DSM IV (American Psychiatric Association [APA], 1994) as types of stressors that are capable of producing PTSD, and long term psychological trauma. Additionally, post traumatic stress is distinguished from other mental health diagnoses, often by a very clear point of onset, the traumatic event, and by a failure of the normal response to resolve the distress. These characteristics clarify the prospect of early interventions for PTSD (Zohar et al., 2011). Encouraging psychological care, early interventions, may serve an important role in prevention of long term psychological stress for trauma (Zohar et al., 2011). ED nursing is challenged to move beyond care for the immediate physical trauma (Rahmqvist Linnarsson & Benzein, 2014)

to emphasize holistic care with early interventions for all victims of violent crime, preventing PTSD.

Resilience

For victims of violent crime, resilience is the capacity for positive emotions and generative experiences, both immediately and in the months following a potentially traumatic event (Bonanno, G. & Keltner, D., 1997). Encouraging resilience through early interventions is a possibility for diminishing or preventing long term psychological distress (PTSD) and comorbidities. Resilience originates from the Latin word *resilia* meaning the action of rebounding ("*Oxford English Dictionary*," 2010). Evolution of the construct of resilience from physiological (stress) and psychological (coping) research began in the 1800s and has been most often studied in relationship to adversity, trauma, and transitions from great stress (Ahern, 2008; Tusaie & Dyer, 2004). Resilience is found in the literature related to victims, violent crime, PTSD, and early interventions and is validated as a major concept in nursing, psychology, psychiatry, and sociology (King, 2008; Neuman & Fawcett, 2002; Tusaie & Dyer, 2004).

Research on resilience is descriptive with many qualitative studies. Ethical considerations prohibit experimental designs with researchers relying on natural experiments to study high risk groups (Curtis & Cicchetti, 2003). Descriptive resilience studies such as interviews, surveys, and observations**,** have identified many factors associated with good outcomes under adverse conditions, including long-term confidant relationships, capacities for appropriate expression of emotion, and a willingness to engage in styles of coping that are pro-social and are not self-injurious or harmful to others (Gilgun, 2005).

The study of resilience began to move away from traditional social-psychological and developmental studies to more in-depth studies of trauma survivors when PTSD was recognized

as a diagnosis in the early 1980's (Agaibi & Wilson, 2005). Resilience emerged as an important area of health research in the 1990s through the phenomenological study of child survivor characteristics (Werner & Smith, 1992) and Werner's (1993) landmark study of children at risk. This longitudinal study explored characteristics and protective factors that encourage thriving after trauma or adversity. The outcomes of this study led to the current emphasis on the development and/or enhancement of protective factors (ego resiliency and supportive relationships) to increase resilience in individuals. Resilience can be measured using the Connor–Davidson Resilience Scale (Connor & Davidson, 2003), the Resilience Scale for Adults (Rutter, 1987), and the Stress Vulnerability Scale (Connor, 2006).

A large and diverse body of literature indicates that all people have some level of resilience, and approximately one third of any population has high levels of resilience (Rutter, 1987; Tusaie & Dyer, 2004; Werner & Smith, 1982*).* Resilience among adults exposed to potentially traumatic events were thought to occur rarely and only in extremes such as either pathological or exceptionally healthy individuals (Bonanno, 2005). Current research indicates however, that resilience is the most common reaction among adults exposed to traumatic events and is a relatively stable pattern of healthy functioning with the lasting capacity for positive outcomes (Agaibi & Wilson, 2005). Some victims are at low risk for long term mental health issues and can experience a spontaneous recovery and resilience. Most victims of crime do not develop mental health problems or even access support services (Gannon & Mihorean, 2005). In fact, crime victims are likely to show various levels of resiliency and a wide range of reactions, both positive and negative coping abilities to move forward (Hill, 2009). A healthy recovery and response to a traumatic event can occur as spontaneous and natural in the majority of individuals (Bisson & Cohen, 2006). Other studies have shown that what traits scientists once thought of as

nice but unnecessary, having a strong network of social support is critical to resilience. “Very few highly resilient individuals are strong in and by themselves,” Southwick says. “You need support” (as cited in Oaklander, 2015, p. 42).

Thompson, Arnkoff, and Glass (2011) reviewed resilience potential and PTSD vulnerability related to mindfulness and acceptance-based theories of psychopathology. In a review of fifteen studies, the empirical literature largely supported that mindfulness and acceptance were associated with greater psychological adjustment following exposure to trauma, while avoidance, persistent dissociation, and emotional disengagement were associated with greater PTSD symptom severity (Gilboa-Schechtman & Foa, 2001). The concept of mindfulness and acceptance to promote resilience and recovery reflect consistency with early intervention recommendations, that victims share their trauma memories and engage social support to mediate stress and the coping process (Green & Pomeroy, 2007). Mindfulness originated as a spiritual practice from Buddhist meditation. Mindfulness, in the secular adaptation, is sustained attention on the present experience while moving beyond distracting thoughts and emotions, no longer judging them, but rather going toward acceptance (Bishop et al., 2004). Acceptance, like mindfulness, focuses on being fully present in the experience, but originates in empiricism. Bishop et al. (2004), hypothesize that mindfulness and acceptance change attitudes and relationships towards thoughts, from subjective and short-lived, to accurate unchanging reflections of reality.

In their review, Thompson et al. (2011) suggest that mindfulness and acceptance-based treatments may be a promising early intervention for victims who are experiencing psychological symptoms in the initial weeks following a traumatic event. Mindfulness and acceptance interventions emphasize present moment contact with trauma related emotions, memories, and

associated physiological reactivity. These interventions may consequently encourage early emotional engagement with violent experiences and prevent persistent avoidance behaviors and trauma memories. Interventions to encourage resilience and positive adaptation are essential opportunities for healthcare strategies for victims of violent crime. PTSD prevention involving mindfulness and acceptance are suggested as interventions with additional research needed to evaluate effectiveness and outcomes (Thompson et al., 2011). Further research evaluating the efficacy of such early interventions could provide important contributions to the resilience literature and care for victims of violent crime (Thompson et al., 2011). Current literature cites expert's suggestions for resilience that reinforce previous mindfulness research by Thompson (2011) that encourages early emotional engagement with violent experiences, averting persistent avoidance behaviors, and trauma memories, to prevent PTSD. "Don't run from things that scare you: face them" (Oaklander, 2015, p. 42).

Resilience in relation to trauma and PTSD was reviewed by Agaibi and Wilson (2005). In 138 studies from 1961 to 2004, a framework to view the historical evolution of research on psychological resilience in general and the nature of posttraumatic resilience was used to examine individuals experiencing a wide range of trauma. Highly resilient behaviors were defined in terms of acute and long-term positive adaptation. In contrast, minimal coping was defined as acute and long-term negative adaptation and represented significant risk factors for the development of PTSD and psychopathology. Results identified a person-environment resiliency paradigm relating to perception, processing, and adaptation to traumatic stress.

Knowledge of resilience and vulnerability factors can be significant in the assessment and care of trauma victims. PTSD results from different responses, reflecting different vulnerability or resilience (Zohar et al., 2009). Early psychological intervention enhances coping and

resilience, and promotes recovery (Riddell, 2004). If risk factors are identified, screening and timely interventions can be engaged to enhance client outcomes. The nurses' role is integral in supporting the victims' awareness and accessibility to resilience resources.

Early Interventions

The optimal time and practice strategies to encourage quality of life for victims of violent crime is undeniably significant with growing evidence supporting early interventions to prevent or reduce PTSD (Ai & Park, 2005; Green & Diaz, 2007; Shalev, 2007; Shalev, Israeli-Shalev, Peleg, Adessky, & Freedman, 2012; Zohar, Sonnino, Juven-Wetzler, & Cohen, 2009). The intensity and magnitude of the victim's immediate response to the traumatic event are associated with increased risk of developing PTSD. An important indicator of treatment need appears to be the severity of PTSD symptoms approximately 2–4 weeks after the trauma (Shalev, 2007). After a trauma is experienced, it is believed that a window of time exists to prevent the development of psychological consequences such as PTSD. Because PTSD has a clear point of onset, the traumatic event, and is characterized by a failure of the normal response to resolve, PTSD appears as a good candidate for secondary prevention, i.e., interventions immediately after the trauma (Zohar et al., 2011,p. 301).

Early interventions vary from psychotherapy to stress recognition with therapeutic support and may include Psychological Debriefing (PD) or Critical Incident Stress Debriefing (CISD), Critical Incident Stress Management (CISM), Cognitive Behavior Therapy (CBT), Emotional Processing, Posttraumatic Growth (PTG), Prolonged Exposure Therapy (PE), and psychological first aid. These interventions are non-pharmaceutical and are aimed at reducing traumatic stress symptoms offered by one or more health professionals or lay person, with contact between therapist and participant (Bisson, Brayne, Frank, Ochberg, & Everly, 2007).

Early psychological interventions also involve organizations with practice models derived from modern crisis intervention including the American Red Cross, International Critical Incident Stress Foundation, Operation Green Cross, and National Organization for Victims' Assistance (Riddell, 2004).

New interventions in the early treatment of PTSD are emerging which have a theoretical basis differing from the currently established interventions (Bomyea, 2012). These third wave behavioral therapies include Acceptance and Commitment Therapy (ACT), Dialectical Behavior Therapy (DBT), Mindfulness Based Cognitive Therapy, Behavioral Activation (BA), and Functional Analytic Psychotherapy (FAP). These interventions focus on modifying the relationship between the individual and psychological experiences, rather than focusing on reduction of symptomatology (Hayes, 2006). Interest in these treatments has rapidly increased with limited empirical evidence currently available in the literature (Mulick, Landes, & Kanter, 2011).

The history of early crisis intervention can be traced from World War I (Litz, Grey, Bryant, & Adler, 2002) and World War II to the present time (Adler, Castro, & McGurk, 2009). Military commanders would meet with their men to debrief them following a battle, to boost morale by sharing stories about what had happened during the battle. Early psychological intervention further evolved from prevention approaches including community mental health, public health, and most recently, emergency mental health (Riddell, 2004). Gerald Caplan (1961), the founder of crisis intervention theory and practice, emphasized rapid restoration to pre-crisis functioning, applying Erich Lindemann's (1944) work on anticipatory grief.

For more than 20 years, the most common form of early intervention for traumatic events has been Psychological Debriefing (PD). Building on the crisis intervention model, Jeffrey T.

Mitchell developed the most practiced forms of Psychological Debriefing, Critical Incident Stress Debriefing (CISD) and Critical Incident Stress Management (CISM). Since the early 1980's, CISD has been routinely used by professional rescue services in Europe, with the Oklahoma city bombing as a turning point of public awareness of CISD in the United States (Riddell, 2004). Mitchell's debriefing was originally intended to be implemented with groups of emergency responders (within several days of a traumatic event), not for individuals. PD, when implemented for single individuals instead of groups, has been evaluated as nontherapeutic and even potentially harmful with premature re-exposure to traumatic memories, prolonged peri-traumatic distress, and memory consolidation that can interfere with natural recovery (McNally, Bryant, & Ehlers, 2003). PD has been the focus of much controversy and ongoing debate about when or if early interventions should be initiated. The different conclusions about the value of PD as an early intervention are controversial, challenging research for evaluation of other early interventions (McNally et al., 2003).

Debriefing advocates cite positive findings that critics regard as methodologically flawed with failure of randomized assignment or absence of control groups. Advocates state that PD is not intended as psychotherapy, but as crisis intervention, and that research critics have used ineffective measures, randomized controlled trial standards, to evaluate debriefing (Mitchell, 2003; Riddell, 2004). Additionally, dependent variables, such as reductions in clinical depression and symptoms of PTSD, were used as treatment outcome measures instead of crisis intervention outcome measures (adaptive function, return to work, and lower sick time utilization) (Mitchell, 2003). Critics argue that when researchers fail to confirm the efficacy of debriefing in controlled studies with negative outcomes, debriefing advocates dismiss the studies as irrelevant due to improper research protocol (Mitchell, 2003).

Campfield and Hill (2001) advocated debriefing in the findings from their study with victims of robbery. Seventy-seven civilian victims of robbery were randomly assigned to either an immediate (< 10 hr.) or delayed (> 48 hr.) debriefing group, using the Mitchell CISD protocol. Participants were treated either individually or as pairs, with an average of 2.5 individuals per debriefing. Scores on the Posttraumatic Stress Diagnostic Scale were obtained at 4-time intervals: initial debriefing, post-debriefing at days 2 and 4, and 2 weeks post robbery. The number and severity of symptoms did not differ at debriefing but were lower for the immediate group than for the delayed group at each subsequent time interval. The number and severity of symptoms declined across time intervals; however, although this reduction was pronounced for the immediate group it was minimal for the delayed group. The results supported use of immediate debriefing with this type of trauma and victim. Critics view the outcomes of this study as violations of Mitchell's debriefing criteria implemented with individuals instead of groups and with PTSD symptom change measured as a dependent variable instead of a crisis outcome measure (McNally et al., 2003). These concerns have persisted and contribute to reluctance to pursue early interventions as a practice for victims of violence at risk for PTSD (Riddell, 2004).

With the potentially debilitating effects of PTSD and in response to the disappointing results for Psychological Debriefing as an early intervention, much interest exists in finding empirically supported early intervention strategies. In fifty-seven randomized controlled trials from 1979 to 2003, Ehlers and Clark (2003) reviewed early psychological interventions for adult survivors of trauma. In most studies, it remained unclear whether supportive counseling facilitated or retarded recovery, compared with no intervention. In supportive counseling, brief sessions of active listening, focusing on solutions and coping strategies for optimal adjustment to

ongoing stress were questionable. A brief Cognitive Behavioral Therapy program given in the first month of trauma was not superior to repeated assessment; however, a course of Cognitive Behavioral Therapy of up to 16 sessions given at 1-4 months after trauma was superior to self-help, repeated assessment, and no intervention (Ehlers & Clark, 2003).

Ehlers and Clark (2003) identified unresolved issues with CBT in need of further research. Some CBT studies had higher dropout rates. Bryant (1999) had dropout rates of 20% to 29%, whereas Ehlers and Clark (2003) had a 0% dropout rate. Ehlers and Clark (2003) relied less on Prolonged Imaginal Exposure (reliving) of the trauma and more on cognitive therapy for correcting maladaptive trauma-related beliefs compared to Bryant (1999). Cognitive therapy may be less stressful and therefore more acceptable, thereby diminishing dropout rates. Possible reasons for the difference in efficacy between CBT and PD or self-help included ways of working through traumatic memories and the impact of the interventions on victims' interpretations of their PTSD symptoms (Ehlers & Clark, 2003). Victims undergo cognitive and emotional changes through the process of victimization. Research on treatment programs indicated that programs that focus on cognitive skills help victims reach a non-symptom status more quickly. However, other research shows that those who do not receive treatment may eventually catch up to treated groups. Thus, it is reasonable to assume that there are changes in cognitive elements and that the victim is faced with cognitive adjustment after victimization. Victims requiring services need to quickly access appropriate interventions to minimize the time they must cope with distress (DOJ, 2003). The systematic review concluded that single sessions of individual Psychological Debriefing were not effective in reducing distress or subsequent PTSD symptoms. Cognitive Behavioral Therapy was more effective than supportive counseling in preventing chronicity of PTSD symptoms.

The efficacy of multiple-session early psychological interventions to prevent and treat traumatic stress symptoms was the focus of a systematic review and meta-analysis by Roberts, Kitchiner, Kenardy, and Bisson (2009). The reviewers identified randomized controlled trials of multiple-session psychological treatments aimed at preventing or reducing traumatic stress symptoms in individuals within 3 months of exposure to a traumatic event. Twenty-five studies were identified that examined a range of interventions (Roberts, Kitchiner, Kenardy, & Bisson, 2009).

Study results showed no significant difference between any intervention and usual care for treatment of individuals exposed to a trauma irrespective of their symptoms. Trauma-focused Cognitive Behavioral Therapy (CBT) was more effective than waiting list or supportive counseling conditions for treatment of traumatic stress symptoms irrespective of diagnosis. The difference was greatest for treatment of acute stress disorder and acute posttraumatic stress disorder. Trauma-focused CBT within three months of a traumatic event appears to be effective for individuals with traumatic stress symptoms, especially those who meet the threshold for a clinical diagnosis (Roberts et al., 2009).

Implications for practice suggest that no psychological intervention can be recommended for routine use following traumatic events. This is consistent with the results of single-session Psychological Debriefing interventions, but except for adapted CISD, no evidence was found of any harm occurring because of an intervention. Trauma-focused CBT was the only early intervention with convincing evidence of efficacy in reducing and preventing traumatic stress symptoms, but only for symptomatic individuals and particularly for those who met the diagnostic criteria for acute stress disorder or acute PTSD. The less convincing evidence in favor of trauma-focused CBT for all symptomatic individuals raises some interesting clinical

implications. Positive outcomes in the meta-analysis for all symptomatic individuals appear to have been bolstered by the outcomes from studies focusing specifically on individuals meeting all diagnostic criteria for acute stress disorder and acute PTSD. This suggests that the presence of a specific diagnosis may be the most important predictor of who will benefit from trauma-focused CBT. The fact that trauma-focused CBT appears to be an effective treatment suggests that more work should be done to determine whether it could be delivered as part of a screening program such as in the ED after major traumatic events (Roberts et al., 2009). With the modest overall effects of trauma-focused CBT, the development and trialing of other psychological treatments are important (Roberts et al., 2009).

Agorastos, Marmar, and Otte (2012) reviewed current evidence regarding immediate (within hours) and early (within days and weeks) psychological and behavioral interventions to prevent posttraumatic stress symptoms. Their review included 82 studies from 2000 to 2011. Results found no randomized controlled trials that examined immediate trauma-focused cognitive behavioral interventions. Some, studies showed that cognitive behavioral interventions are effective if administered within days or weeks after a traumatic event. For other early interventions after trauma exposure, there was no evidence, or only weak evidence in support of their efficacy. However, conclusions are limited by the small numbers of trials examining immediate and early interventions (Agorastos, 2011).

Despite these challenges, a recent study reports a behavioral intervention delivered to victims immediately post-trauma that was effective at reducing posttraumatic stress reactions. Rothbaum, et al. (2012) tested an early intervention intended to modify memory to prevent PTSD development before memory consolidation. The study was conducted at a public hospital emergency department level I trauma center in Georgia. Patients were screened for eligibility

who presented to the ED within 72 hours of experiencing a trauma, who met DSM-IV A criterion, were ages 18 to 65, spoke English, had a memory of the event, and were alert and oriented. Trauma included rape, nonsexual assault, motor vehicle accidents, and other traumas including prior trauma exposure.

Trauma patients were randomly assigned to receive three sessions of an early intervention (modified prolonged exposure) beginning immediately in the ED compared with an assessment only control group who were assessed at weeks four and twelve. All patients (n = 137) were reassessed for symptoms of depression and stress over a twelve-week period. Therapists with master's or doctoral degrees in psychology or social work were trained to screen patients and to administer three one-hour weekly recorded sessions with the intervention group to confront their anxiety and recount their traumatic event. The patients then listened to their recordings daily with therapist's support to identify and alter obtrusive thoughts, guilt, or responsibility about the traumatic event. Self-care and relaxation techniques were taught for support as well.

Most of the patients (88%) were enrolled within 24 hours post trauma. Of the 137 patients in the study, 102 (74%) completed four-week follow-up and 91 (66%) completed 12-week follow-up. No patients reported a desire to withdraw from the study because of their participation, and no study-related adverse effects were reported. No significant group differences in dropout rates were detected, $\chi^2 = 1.92$, $p = .17$.

Patients were assessed at an average of 11.79 hours post trauma. Intervention participants reported significantly lower Post traumatic stress response than the assessment group at 4 weeks post injury, $p < .01$, and at 12 weeks post injury, $p < .05$, and significantly lower depressive symptoms at week 4 than the assessment group, $p < .05$. Findings suggest that the modified

prolonged exposure intervention initiated within hours of the trauma in the emergency department with the intervention group was successful. (Rothbaum et al., 2012).

Study implications were significant. This is the first behavioral intervention delivered immediately after trauma that was safe, feasible, and effective at reducing post traumatic stress reactions (Rothbaum et al., 2012). The opportunity exists for early interventions in emergency departments with specific assessment by emergency care givers. Prevention of psychopathology in those at risk, instead of being limited to symptom treatment after PTSD onset, would be a prevention model and long-standing hope of emergency caregivers including nurses.

As the debate about early intervention has shown, plausible ideas about what interventions make sense in the aftermath of trauma do not necessarily mean that all interventions will prevent or promote recovery from posttraumatic stress. Psychological first aid, as a crisis intervention, is recommended in response to the disappointing results for Psychological Debriefing and the overall uncertainty of trauma-focused Cognitive Behavior Therapy (McNally et al., 2003). Current research supports focusing on modifying the relationship between the individual and psychological experiences, rather than focusing on symptom reduction (Hayes, 2006). These promising third wave early interventions are now acknowledged as empirically sound and as safe practice when implemented immediately after trauma for survivors of violent crime at risk for PTSD (Rothbaum et al., 2012). Prevention of long-term psychological trauma by ED nursing assessment and early intervention is holistic care, a best practice for survivors of violent crime.

Emergency Department Nursing Care of Victims of Violent Crime

The opportunity for early intervention with victims of violent crime is often in the emergency department (Kothari & Rhodes, 2006). At this initial point, emergency care is crucial to reduce the risks of psychological trauma including PTSD for victims of violent crime

(Kercher, 1991). On emergency admission, the immediate focus is frequently victims' physical injury, with psychological trauma as less obvious. Without early assessment and recognition of psychological injuries, the victims' care is compromised. Effective crisis intervention is dependent on accurate assessment that directly translates into focusing treatment when it is needed after the traumatic event (McCracken, 1999; Myer & Conte, 2006). Early intervention for both physical and psychological injuries is needed for holistic care (Hoff & Rosenbau, 1994).

With the increase of violent crime in recent years, emergency departments are burdened with the responsibility to provide care for patients who are victims (McCracken, 1999). Among ED staff, nurses are especially identified as having a key position and role when caring for these victims (Rahmqvist Linnarsson & Benzein, 2014). Emergency department nurses are confronted with many difficult situations and challenged to create supportive relationships with clients while rapidly knowing and skillfully initiating emergency care. The ED nurse's observations are a vital responsibility and often the basis of the physicians' decisions in the diagnostic process (Langeland & Sørlie, 2011). Identifying the ED nurses' role in assessment of psychological needs and early intervention is significant for the care of all victims of violent crime**.** Specific attention regarding client's stress and coping needs is described by Benner and Wrubel (1989) as "nurse's caring"**.** Virginia Henderson (1964) postulates in her nursing theory that nurses are caregivers who independently assist the patient in sickness or wellness, in activities contributing to health and to recovery, providing holistic care for all patients.

Limited knowledge exists concerning ED nurses' views of psychological care and early interventions for victims of violent crime (Rahmqvist Linnarsson & Benzein, 2014). Additionally, the nursing literature that does exist about victims of violent crime is often focused on forensic nursing or the studies were conducted in other countries. The care that many ED

nurses provide for victims of violent crime is considered forensic nursing although forensic education, policies, and protocols are limited or nonexistent to guide this specific ED care. ED nursing policies and protocols that do exist for victims of violent crime frequently concern only women and children, specifically with interpersonal violence (Rahmqvist Linnarsson & Benzein, 2014). The Sexual Assault Nurse Examiner (SANE), a forensic nurse, does practice early intervention with victims of violence, specifically for victims of sexual assault (Sexual Assault Nurse Examiner, n.d.). This model of crisis intervention is established in practice and supported by evidence-based studies that could serve to facilitate future emergency nursing research, education, and care for all victims of violent crime.

Looking at emergency care from the victim's perspective can contribute valuable knowledge to nursing's role in early interventions. In a qualitative study in an urban Ireland emergency department, McBrearty (2011) focused on the lived experience and the impact of crime on the injured victims. Using a phenomenological approach, nine study participants were selected using Colaizzi's (1978) criteria, the ability to articulate the lived experience. Sexual assault and domestic violence victims were excluded from the study selection of injured victims of crime. Six males and three female victims of crime participated in unstructured, in-depth, face-to-face interviews, recorded within 12-weeks following their ED admission. The participants described and reflected the essence their crime experiences in interviews and journal entries. From their perspective four themes emerged; "Fear, Shock and Disbelief", "Guilt/Self-blame", "Physical and Psychological Scars" and "Lifestyle Changes". The psychological and physical effect of violence for victims prevailed and extended beyond the ED admission. Fear, shock, and disbelief were followed by feelings of anxiety, vulnerability and

anger toward the assailant. Care of physical injuries was acknowledged but referral for psychological care was lacking.

McBrearty's (2011) findings showed that the emergency department's care for victims' of crime seemed concerned only with physical injuries. The potential psychological trauma of victim's experience was not acknowledged during the interview, including the absence of discussion or referral for psychological follow-up care. Although these findings suggest that physical trauma demands immediate attention, psychological care or social rehabilitative plans were not evident for these victims of crime. The author presented insight into the experience of being a victim of with the potential to maximize holistic care through early nursing assessment and intervention of psychological trauma, the injuries not visibly seen. This study gives credence to the serious impact of psychological trauma on victims of violent crime. The significance of psychological trauma supports further study to determine whether ED nurses assess this trauma and initiate early interventions and referral for ongoing psychological care.

In an effort to describe ED nurses' perspective of care for victims of violence and their families, Rahmqvist Linnarsson, Benzein,and Kristofer (2014) studied nursing care in 28 Swedish Emergency Departments. Nurses' views and attitudes of victims' emergency care and involvement of family members in assessment and care is important, with nurses having a key role in that care. The health consequences of violence for victims and family members are a serious issue. Using a cross-sectional design, 867 registered nurses participated in sampling nurses' attitudes towards families' involvement in victims' care. Data was collected using an emailed instrument, *Families' Importance in Nursing Care- Nurses' Attitudes,* and a self-report questionnaire. Responses were received by 53% (453) of the nurses including 372 women and 85 men, ages ranging from 22-65, with a mean age of 40.4 years. Data was analyzed using

descriptive statistics, multiple linear regression and ordinal regression (Rahmqvist Linnarsson et al., 2014).

Data results showed that most ED nurses (93%) provided some forensic care, but only 28% had specific forensic education and 83% expressed a need for such. Family members (79%) were involved in care by most nurses although policies and education were usually specific only for women and children and rarely addressed family. Fewer than 8% of the nurses had previous education about family involvement in care and 91% knew of no protocols addressing family participation in victims' care. Specific protocols on care for victims of violence were reported as available by 78% of the nurses. Although these protocols were reported as specific to care for interpersonal violence, women and children only, 60% of the nurses acknowledged these protocols as helpful when caring for these victims. Continuity of care for victims of violence was provided by the nurses (76%) through cooperation with other supporting agencies. Only 3% of the nurses asked all their patients about a violent experience with 28% not addressing a violent experience with any patients. Most of the nurses (72%) asked specific patients (women and children) about violent experiences especially when injuries were related to interpersonal violence (Rahmqvist Linnarsson et al., 2014).

Policies, protocol, and education for nursing care for all victims of violence and their family are needed for ED nurses. ED nurses are aware of this need and expressed the limitations of current protocol and policies that exclude family members and focus specifically on interpersonal violence of women and children (Rahmqvist Linnarsson et al., 2014). Recognition of all victims of violence regardless of age, gender or the precipitating event is essential for appropriate care and early interventions. Further research is warranted to advance nursing education and care for all victims of violence and their families (Rahmqvist Linnarsson et al.,

2014). Today, screening for violence is a minimum standard of care for all patients (Sekula, 2005). Nurses must ensure that the physical and psychosocial needs of the patient are met and focus on holistic care. Many nurses however, are not prepared to identify and care for patients who are victims of violence (Wick, 2000).

Nurses are routinely involved in responses to violence after it occurs (Healthy People 2020). Emergency nurses' clinical practice is challenging and difficult with feelings of great responsibility and vulnerability. With the increase of violence in society, ED nurses are further challenged with the growing number of victims. Ethical challenges arise from difficulties in prioritizing the many demands with never enough time for patients, combined with a focus on urgent physical trauma (Langeland & Sørlie, 2011).

A qualitative study, highlighting ethical issues for ED nurses, was conducted in Norway (Langeland & Sørlie, 2011). Five participants were selected from the initial five ED nurses to express interest in the study. Participants' ages ranged from 30–50 years (mean 40Æ6), with all having 6-20 years of full time ED experience. Participants were interviewed during their work schedule in a private ED conference room. The open-ended narrative interviews lasted for 45–70 minutes (average = 59) and the ED nurse participants were encouraged to talk freely and uninterrupted regarding their experiences. The concept of ethically difficult experiences was not defined but left open to the participants for description (Langeland & Sørlie, 2011).

Interviews were analyzed and interpreted using a phenomenological hermeneutical method based on the importance of perceived experience, or practice experiences (Lindseth & Norberg, 2004). Themes that emerged from the interview analysis were: vulnerability, responsibility, and priorities. Sub themes included: being close to suffering/death, showing your

own feelings, a great responsibility, irresponsible care, one's own priorities, and relatives (Langeland & Sørlie, 2011).

The most significant concerns nurses identified in the study were the enormous difficulty with task prioritization and the associated sense of responsibility (Langeland & Sørlie, 2011). Vulnerability in ethically challenging situations was also identified. Løgstrup (1956), describes responsibility and vulnerability as closely linked to the life of others; nurses feel a great responsibility and accountability for patients' care. Additionally, the doctor's decisions were often based on the nurse's observations making them partly responsible. ED nurses felt enormous responsibility for providing immediate care with insufficient time for the gravely ill, while experiencing vulnerability with the patient's suffering. Constantly knowing that the patient's life might be at risk, an inner conflict was experienced with their own priorities when deciding vitally important and life impacting care (Langeland, & Sørlie 2011). The ethical demand is silent and thus make individuals responsible (Løgstrup, 1956).

This study has relevance for nursing clinical practice and early interventions in the ED. Prioritizing victim's needs is an essential aspect of the ED nurse's ethical responsibility. Recognizing the significance of early interventions for both physical and psychological trauma through clear assessment and communication with the physician can support priority decisions to minimize risks, long term consequences of PTSD, and other comorbidities.

At times in practice, all registered nurses encounter issues related to violence, injury and prevention of injury, victimization, abuse, and exploitation (American Nurses Association, 1997). Knowing this and acknowledging victims' urgent needs in the ED is an integral aspect of their assessment and care. Recognition of the significance of early interventions and the importance of addressing psychological trauma for the victim of violence is utmost for quality of

life and the victim's future. Holistic nursing care for all victims beyond the already established protocols for women and children would be a tremendous advancement for the growing population of victims of violent crime seeking care in the ED. Distinguishing the emergency psychological care of victims of violent crime has been a longstanding and often unspoken challenge of many ED nurses. Uncounted numbers of ED nurses are not educated about the needs for victims of violence or forensic care, nor are they mental health specialist. Position statements by professional nursing organizations support the education of nurses in assessment and treatment of victims of violence (American Association of Colleges of Nursing, 1999; American Nurses Association, 2000; Emergency Nurses Association, 1998). Forensic protocols do exist for nursing assessment and treatment of sexual assault and domestic violence victims (Sexual Assault Nurse Examiner, n.d.). Education of nurses about victims of violence is recommended to include initial interventions, prevention, detection, and appropriate referrals. Despite formal support and recommendations, these nursing skills and protocols are still lacking for all victims of violence in the trauma setting. All victims have rights to holistic care (McCracken, 1999). Standard nursing protocols and education would enhance clinical practice in the trauma setting for victims of violent crime (Eldredge, 2008).

Eldredge (2008) studied attitudes and beliefs, use of protocols, accessibility of specialists, and the difference in knowledge levels between ED nurses and intensive care unit (ICU) nurses related to forensic protocols and forensic specialists. ED nurses' practice was investigated in a descriptive study with both quantitative and qualitative components looking at nurses' knowledge of care for victims of violent crime. An anonymous questionnaire was developed by the primary investigator with expert review for appropriate forensic content.

After meeting the inclusion criteria, 70 nurses in a Pennsylvania level II trauma center were selected for the study. Participants were 79% female and 21% male, with 47% between the ages of 20 and 39 years, and 50% between the ages of 40 and 59 years. Participants' years of nursing practice was: less than 5 years (21%), 6–15 years of experience (32%), and more than 15 (47%) years of experience. Questionnaires were distributed in department mailboxes followed by an email reminder. After two weeks, responses were collected in designated envelopes in each unit's break room and through interdepartmental mail. A total of 38 trauma nurses (n = 38) responded, of which thirteen were ED nurses (35%) and 25 were ICU nurses (65%). Participants' educational background included baccalaureate degree (58%), diploma program (24%), and associate degree (18%) (Eldredge, 2008).

Emergency department nurses were significantly more knowledgeable about the existence of victim care protocols than the ICU nurses with 58% of all responses reporting some forensic education and 42% with no forensic education. Most respondents expressed an interest in forensic protocols for their clinical practice. Of the nurses responding, 63% agreed or strongly agreed that they were not adequately prepared to address forensic issues, while 8% were uncertain, and 29% disagreed or strongly disagreed that they were not adequately prepared. Ninety-five percent of the nurses agreed or strongly agreed that forensic education was important in the practice of trauma care and 87% expressed the need for more forensic education (Eldredge, 2008). Only one of the 38 respondents were unfamiliar with forensic nursing. Participants agreed or strongly agreed (97%) that forensic protocols are important in the practice of trauma care, and 82% strongly disagreed or disagreed that there is no time to worry about forensics in the trauma setting. Participants (95%) agreed or strongly agreed the most important factor in trauma care was the medical needs of victims. Only 5% agreed, and 13% were

uncertain with the statement "I am uncomfortable dealing with victims of violence." Of those surveyed, 9% agreed or strongly agreed that police should take care of forensic issues, while 32% were uncertain, and 58% disagreed or strongly disagreed (Eldredge, 2008).

Because of the prevalence of violence in our society, nurses frequently care for victims (American Association of Colleges of Nursing, 1999). The emergency nurse can be a vital link between the victim and supportive resources that could influence health and resilience (ENA, 2014). Understanding whether emergency nurses assess the psychological needs of adult victims of violent crime and subsequently determine effective early intervention strategies for these victims is significant for holistic care. A long standing and often unspoken challenge of many ED nurses is the unknown protocol for emergency psychological care of victims of violent crime. Many nurses are not prepared to identify and care for patients who are victims of violence (Wick, 2000). Limited knowledge exists concerning ED nurses' views of psychological care and early interventions for victims of violent crime (Rahmqvist Linnarsson & Benzein, 2014). Most nursing studies that do exist are conducted in other countries and not specific to ED nursing practice in the United States (Langeland & Sørlie, 2011; McBrearty, 2011; Rahmqvist Linnarsson & Benzein, 2014). In the United States, most nursing studies with victims of violent crime are in the context of interpersonal violence and forensic care. Further research is warranted to advance nursing knowledge about holistic care for all victims of violence and their families (Rahmqvist Linnarsson & Benzein, 2014). ED nursing's contribution to this care is an integral part of the health care system.

Given the personal and societal costs with the growing incidence of violent crime, the healthcare response to victims of violence is undeniably significant. Understanding the victim's needs is a serious concern. With limited research that includes psychological care for all victims

of violent crime, gaps in the literature exist specific to emergency department nursing practice and strategies for early interventions. Clinical practice in the trauma setting would be enhanced by standard early intervention protocols for all survivors of violent crime. The reality for holistic care exists by addressing psychological trauma with early intervention protocols in addition to the immediate priorities for physical trauma. Using existing crisis intervention and resilience theoretical frameworks as well as the SANE model, evidence-based nursing practice for trauma victims of violent crime could be established. Standard nursing protocols and nursing education would enhance clinical practice in the trauma setting for victims of violent crime (Eldredge, 2008). The time for development of nursing early intervention protocols for care for all ED survivors of violent crime is now. The urgency and risks for these victims are too high to not address their psychological needs with a holistic approach in ED nursing care.

Discussion and Conclusions

In review of the literature, the urgency of victims of violent crime is clearly identified, emphasizing the need for holistic nursing care. The extreme psychological trauma sustained by victims after a traumatic event places them at risk for chronic mental health issues and other comorbidities (Bonanno, 2004). Early interventions, nursing assessment focusing on psychological trauma for victims of violent crime, could identify and support those at risk, providing holistic care to prevent devastating physical and psychological effects persisting beyond the emergency admission.

As nurses in the emergency departments focus on the serious physical injuries of victims of violent crime, psychological injuries are often unseen, nor assessed, or acknowledged. The urgency of this care, the psychological trauma, is recognized throughout the literature (Bonanno, 2004; Hoff & Rosenbaum, 1994; National Center for Victims of Crime, 2012; Rahmqvist

Linnarsson & Benzein, 2014; Riddell, 2004; Shalev et al., 2012; Zohar et al., 2011). Studies of victims, violence, violent crimes, PTSD, resilience, early interventions, and nursing identify psychological trauma as clearly significant in the long-term impact and potential recovery of the individual. Few studies identify the nurse's role in early intervention care or relate to the nursing assessment of psychological trauma of victims of violent crime. ED nursing policies and protocols were limited or nonexistent to guide this specific ED nursing care. Protocols that do exist for victims of violent crime frequently concern interpersonal violence (Rahmqvist Linnarsson & Benzein, 2014) and most existing studies on ED nursing early interventions with victims of non-interpersonal violent crime have been conducted in other countries.

Acknowledging the personal and societal costs and the growing incidence of violent crime, the healthcare response to victims of violence is indisputably important. Improved understanding of early crisis intervention can promote opportunities to reduce the severity of reactions, reduce the chance of subsequent PTSD, and increase the potential for victims' recovery (Bonanno, 2004). Improved understanding of the ED nurses' role in early crisis intervention can promote opportunities to reduce or prevent the severity of psychological trauma and improve quality of life and resilience with holistic care for all victims of violent crime.

The literature review supports further nursing research to understand whether emergency nurses assess the psychological needs of adult victims of violent crime and subsequently determine effective early intervention strategies for care. Further study is warranted to establish ED nursing practice and education clarifying the long standing and often unspoken nursing challenge to distinguish emergency psychological care of victims of violent crime. Early interventions, nursing assessment focusing on psychological trauma for victims of violent crime, could become a standard protocol in the ED to identify and support those at risk, providing

holistic care to prevent chronic mental health issues.

Theoretical framework

Crisis intervention theory is grounded in the concept of homeostasis (Caplan, 1961) and offers a framework to understand victims' response to violent crime (Roberts et al., 2009). In this theoretical framework, crisis intervention connects the concepts of victim, violent crime, PTSD and resilience to distinguish the importance of early psychological intervention and ED nursing care. When applied to nursing practice with victims of violent crime, crisis intervention theory can support and guide the development of ED nursing assessment and early intervention for holistic care.

Victims of violent crime often enter a crisis, disequilibrium, after a traumatic event. Crisis intervention theory can support equilibrium preventing serious psychological trauma (Paol, 1990). Equilibrium and homeostasis are encouraged outcomes of crisis intervention theory and with the integration of contemporary concepts, the potential of resilience emerges (Caplan, 1964). Nursing theorists have identified concepts that relate to adversity, advocating care, diminishing stress, and promoting a return to a state of balance (Benner & Wrubel, 1989; Neuman, 2002). Crisis intervention theory is reflected by Benner and Wrubel (1989) as well as Neuman (2002) in their nursing theories of caring for individuals facing adversity. When crisis intervention theory is applied in the care of victims of violent crime, the nursing role can be recognized in the phases of crisis reaction as assessment and early intervention.

Caplan's (1964) crisis intervention theory describes four distinct phases of crisis reactions with the greatest potential for interventions during the second phase, when the individual senses feeling upset and ineffective. Consideration of all crisis stages and individual

characteristic reactions are valuable for treatment strategy (Paol, 1990). These four crisis reaction phases include:

1. When a problem poses a threat to homeostatic state, the person responds to feelings of increased tension by using their habitual problem-solving measures to restore emotional equilibrium.
2. A rise in tension exists due to the failure of habitual problem-solving measures and the persistence of the threat and problem. The person's functioning becomes disorganized and the individual senses feelings of upset and ineffectuality.
3. With the continued failure of the individual's efforts, a further rise in tension acts as a stimulus for the mobilization of emergency and novel problem-solving measures. At this stage, the problem may be redefined, the individual may resign himself to the problem or he may find a solution.
4. If the problem continues, the tension mounts beyond a further threshold or its burden increases over time to a breaking point. The result may be a major breakdown in the individual's mental and social functioning (Caplan, 1964, p. 99-101).

Crisis intervention theory when applied to nursing practice with victims of violent crime can be viewed as a preventive early intervention, and an aspect of caring. Benner and Wrubel (1989) propose that the focus of a nurse's caring defines the areas in which attention is given to a client's stress and coping needs; that caring is central to assessing and intervening on behalf of another. Crisis intervention can be considered a type of secondary prevention, with efforts to

alleviate ongoing stress before serious dysfunction. Disequilibrium and psychopathology can be prevented with support at early stages of crisis (Paol,1990).

Because PTSD is characterized by the traumatic event as a clear point of onset and with a failure of the normal response to resolve, PTSD appears as a good candidate for secondary prevention, i.e., interventions immediately after the trauma (Zohar et al., 2011. p. 301). This is consistent with crisis intervention, as secondary prevention, recommended in Caplan's second phase of crisis reaction. Additionally, regaining homeostasis after a violent crime may be delayed for the survivor because the impact of the violence is so extreme. With victims of violent crime, the immediate onset of avoidance of the horrific event precipitated by post trauma stress, may be interrupted by crisis intervention with early assessment and recognition of the victim's stress reaction and response to the violent event.

Assessing the victim's disequilibrium and initiating crisis intervention is emphasized by the prospect for recovery and a return to homeostasis. Using the crisis theory model, initiating nursing assessment protocols for victims of violent crime in the ED would facilitate crisis intervention in the second phase of crisis reaction with interruption of avoidance and prolonged disequilibrium. With crisis intervention, nursing assessment as part of early intervention protocol, focusing on psychological trauma and disequilibrium, could become a standard ED nursing practice. This early intervention practice is secondary prevention, identifying and supporting those at risk, providing holistic care to prevent long term mental health issues, and a return to equilibrium and homeostasis.

With limited research that clarifies psychological care for all victims of violent crime, addressing gaps in the literature specific to emergency department nursing practice and early intervention is supported with crisis intervention theory. This theoretical framework can

enhance further understanding of early interventions, emergency nurses' assessment of psychological needs of adult victims of violent crime, with promising outcomes of equilibrium, homeostasis, and holistic care. With crisis intervention theory as a framework for practice, the ED nurse's role with all victims of violent crime may be clarified. Clarifying the ED nurse's practice by identifying whether psychological needs of adult victims of violent crime are assessed, the need for developing standard early intervention protocol may be determined. Without procedure or protocol, quality care is not standardized (Snow, 2009).

In a conceptual cross-comparison, the relationship of Caplan's (1964) four crisis reaction phases are compared with two nursing theories, the SANE Model, and the ED nurse's role in early interventions and psychological assessment of victims of violent crime. This conceptual cross-comparison illustrates crisis intervention theory as a framework to clarify early interventions in ED nursing with victims of violent crime. Additionally, nursing theory suggests the importance of the nurse's role in enhancing the psychological well-being of trauma clients (Benner & Wrubel, 1989; Newman, 2002; Polk, 1997; Tusaie & Dyer, 2004; DOJ, 2012)

Conceptual Cross-Comparison of Crisis Intervention Theory with Nursing Theories, SANE Model, and the ED Nurse Role

Crisis Intervention Theory	Nursing Theories	SANE Model	ED Nurse role
Individual (victim) confronted by problem, threat to homeostatic state.	**Benner and Wrubel, 1989** Caring as a focus for stress and coping means as a climate for commitment to client healing. **Neuman, 2002** Holistic client system: • external stressor • Reconstitution • regain optimal system stability	Victim of sexual assault Sexual assault patient victim centered care forensic examiner	Victim of violent crime emergency physical (medical) care Potential early intervention: Psychological assessment and documentation of Holistic care
Stress Problem solving failure, Threat Problem persistence disorganized feelings: upset ineffectual functioning	Guiding through emotional changes holistic competent care (Benner & Wrubel, 1989). The holistic model requires interventions that support reconstitution not only of the physiological, psychological, spiritual, sociocultural, and developmental dimensions (Neuman, 2002).	Assess patients' needs for immediate medical or mental health intervention prior to the evidentiary exam, following facility policy	Potential for secondary prevention, psychological care. Emergency medical (physical) care provided
Crisis intervention Support at early stages of crisis	Providing comfort measures and preserving personhood in the face of pain and extreme breakdown (Benner & Wrubel, 1989). Nursing interventions, primary prevention occurs before the stressor invades the system; secondary prevention occurs after the system has reacted to an invading stressor (Newman, 2002).	**SANE Triage Sexual Assault Response and Resource Teams (**SART/SARRT) Standardized protocol for health care providers facilitate a triage and intake process of patients' needs: prompt, competent medical assessment response to acute injury, the need for trauma are, and safety before collecting evidence.	Holistic intervention not established, physical (medical) care provided, standardized protocol for psychological assessment unknown.
Coping and resolution disequilibrium and psychopathology prevented	Guiding through emotional changes holistic competent care (Benner & Wrubel, 1989). Holistic support in tertiary prevention after the system has reacted to an invading stressor and after secondary prevention, reconstitution is being established (Newman, 2002).	Engaging victim advocates to promote services providing victims with crisis intervention72 and support to help cope with the trauma of the assault73 and begin the healing process.	Resources/referrals Collaboration
Homeostasis-equilibrium or problem persists, major breakdown mental and social functioning	Maximizing the patients control in their recovery (Benner & Wrubel, 1989). The return and maintenance of system stability, following treatment of stressor reaction, which may result in a higher or lower level of wellness (Newman, 2002).	Promoting sensitive and timely physical health, can help reduce the likelihood of acute psychological trauma its aftereffects, support patients' existing and emerging coping skills, and set the tone for patients' resumption of normal functioning.	PTSD Long term mental health issues and co-morbidities

Chapter 3

Methodology

Introduction

Nursing care, assessment and early intervention, with victims of violent crime, is the focus of this quantitative research study. The purpose of this descriptive study is to discover through retrospective chart review, whether emergency nurses assess and document psychological trauma in victims of violent crime and whether they refer for follow up services. A review of the literature identified the urgency of psychological trauma and challenges for nursing to distinguish holistic emergency care for all victims of violent crime. Nursing notes and emergency room reports are significant in retrospective emergency research, a valued methodology in health care studies (Worster & Haines, 2004).

Research Questions

1. Do Emergency Department nurses caring for adult victims of violent crime assess for psychological trauma?
2. Do Emergency Department nurses caring for adult victims of violent crime refer to other health care professionals for holistic care?

Research Design

A non-experimental, descriptive design will employ retrospective data abstraction to determine whether emergency department nurses have documented psychological trauma assessment and/or early intervention care for adult trauma victims of violent crime. With convenience sampling, retrospective chart reviews will be used to abstract data from emergency department records, nursing notes of adult survivors of violent crime.

Setting

The setting will be a regional 393-bed academic medical center located in an Appalachian urban eastern state, one of the largest healthcare facilities in the state. This hospital provides care for patients from more than 29 counties throughout the tristate area of West Virginia, Kentucky, and Ohio. It is one of the most advanced emergency and trauma centers in the region and the country's first Level II joint trauma center directly collaborating with another regional medical center.

Data Abstraction Instrument

The Triage Assessment Scale (TAS) developed by Myer, Williams, Ottens, and Schmidt (1992), was used as the data collection instrument for the ED nursing chart review with written consent from the authors. See Appendix D, Triage Assessment System: Crisis Intervention (Revised). The TAS, a three-dimensional crisis assessment and intervention tool, facilitates the process of psychological first aid by guiding assessment of the severity and urgency of psychological distress in the affective, behavioral, and cognitive domains. The TAS is an important tool for assessing individuals in crisis and translating the assessment directly to care and recovery (Myer & Conte, 2006). The TAS is applicable across different crisis situations with a diversity of crisis professionals and para-professionals. Statistical analysis of data in multiple studies reported the TAS instrument's validity and high inter-rater reliability for assessing the severity of crisis response including victims of violent crimes (Pazar, 2006; Watters, 1997). Pazar (2006) study reported results that the TAS instrument had good inter-rater reliability for crisis severity assessment, with agreement at or above 75% among 145 experts. Watters (1997) found the instrument to be valid with high agreement and inter-rater reliability by four groups of potential crisis intervention workers (independent variable). The groups scored

three vignettes that illustrated clients in distress. Each group's ratings were compared to the other groups. and to crisis assessment experts with inter-rater reliability ranging from 77.3 to 96.6%

The data collection instrument will be used to retrospectively review ED nursing charts by the primary investigator. Data collected from ED nurses' documentation will focus on psychological assessment with adult survivors of (non-interpersonal) violent crime. The TAS will be used to review ED nurses' documentation for evidence of assessed psychological distress in the affective, behavioral, and cognitive domains. Additionally, emergency department demographic information collected to identify characteristics of the ED nurses and practice environment, may clarify and support outcomes and suggest specific nursing education and practice standards to guide early interventions in the ED nursing care for victims of violent crime. The data collection tool instructions will be specific for this study as well as a coding manual with clear protocols and guidelines for the collection of data by abstracters.

Sample size

A statistical power analysis was performed a priori for sample size estimation based on study assessment criterion from the TAS. With an alpha = .05 and power = 0.80, the projected sample size needed with this effect size (GPower 3.1) is approximately n = 113 for this simplest between/within group comparison. The proposed sample size of 113+ will be more than adequate for the proposed research and should also allow for expected attrition and additional objectives of controlling for possible mediating/moderating factors/subgroup analysis. Douglas Darbro, PhD, Ad Hoc Dissertation Committee member, is serving as statistical consultant to review and advise.

Inclusion criteria for records to be reviewed will be emergency department registered nurses' notes for adult violent crime survivors. Registered nurses will include full and part-time

ED staff, SANE nurses, forensic nurses, and nursing administrators. The records reviewed will be specific to survivors of the violent crimes of robbery and aggravated assault, excluding victims of murder, non-negligent manslaughter and forcible rape. Violent crime is defined by the Federal Bureau of Investigation (2009) as murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault. Other inclusion criteria are: initial admission to the ED for trauma assessment and care for a violent crime trauma; victims of violent crime ages 18 and older; male or female; initial ED admission for trauma from a violent crime within dates specified for the study.

Exclusion criteria for records not selected for the study are: injured victims of crime under 18 years of age; deceased victims of murder or manslaughter; victims of interpersonal violence (abuse, domestic violence, rape, sexual assault); as well as a previous admission for the same violent crime event; ED admission outside of the specified review dates, non-Emergency Department documents, and non-registered nurse's notes.

Ethical considerations

Ethical considerations for human subjects were reviewed by the Duquesne University Internal Review Board (IRB) and St. Mary's Medical Center/Marshall University Institutional Review Board for approval before the study begins. Clear understanding of confidentiality and the purpose and process of the study were discussed with all prospective participants. Written consent was obtained and documented for the study. The charts selected for review were assigned an identification number for the study. All data records were coded to preserve anonymity and stored in a secure pass word protected computer portable drive in a locked secure file cabinet as required by the IRB for the primary investigator. Identities of patients and signatures of nurses on documents will be protected by the assigned identification number in all

reports or presentations occurring from the study. Copies of recorded and electronic stored data were securely destroyed as outlined by the IRB or existing policies, after the study was concluded. Ethics board approvals were included in this methods section with copies in the appendices.

Data Abstraction

Initially, the data collection guidelines of the Hospital (ED) was reviewed and acknowledged, including Health Insurance Portability and Accountability Act (HIPAA) boundaries for the use/disclosure of health records. Some details considered included: the procedures needed to select, train, and manage the study's data abstractors, as well as chart procurement and retrieval. Other considerations included who and when charts can be accessed, location and space for chart review, moving charts to other locations, the access schedule, duplication copying policies, and use of institutional or personal computers. These details were clarified before the study begins to avoid any unnecessary challenges to the process of effective data abstraction.

Advantages and Limitations

Some anticipated advantages of this retrospective chart review included a less expensive access to research with existing data and the generation of hypotheses that then were tested prospectively. Some limitations to this retrospective chart review research included: calculating effective sample size, potential abstraction and management errors, resolving ambiguous data, incomplete or missing documentation, poorly recorded, absent information, changing or new documentation methods and formats, and information not centrally located in the medical record.

Data analysis and interpretation

Descriptive and inferential statistics were used to analyze the data abstracted from nursing notes in the ED record for outcomes and conclusions to the research questions. Frequency tables and descriptive statistics were constructed to display results with respect to each of the research questions, to describe patterns in the population and data set in the study. Generalization from the descriptive statistical results included the data and population in this study. Inferential statistics examined the relationships between variables within the collected data and summarize generalizations or predictions within a larger population.

The proposed research methodology, a quantitative study with a descriptive design addressed whether emergency nurses assess and document psychological trauma in victims of violent crime and whether they refer for follow up services. Data collection, a retrospective chart review of ED nursing documentation used the TAS. The data collection instrument recognized with validity and reliability, has applicability in the selected research setting. A proposed sample size of 113 was estimated by statistical power analysis based on data abstraction assessment criterion. With descriptive and inferential statistics, the abstracted data from ED nursing record was analyzed for outcomes and conclusions to the research questions.

Chapter 4

Research Findings and Data Analyses

Introduction

This non-experimental, descriptive study addresses whether emergency nurses assess and document psychological trauma in victims of violent crime and refer for follow up services. This chapter presents analysis and interpretation of retrospective review of 118 Emergency Department nursing charts. Using the Triage Assessment Scale (TAS), the data collection instrument served as a rubric to review nursing documentation, to answer the research questions for psychological assessment and referral. Through cooperation with the participating health care agency, the estimated sample size of 113 ED nursing charts was met. With descriptive and inferential statistics, the data abstracted from ED nursing documentation was analyzed for outcomes and discussed in this Chapter. Results of the data collected are presented with a review of the data collection procedures, data analysis procedures, tools and research questions.

Procedure

Data collection procedures included access to a Medical Center, the electronic health record, development and piloting of the code manual (see Appendix E). Two health care agencies were approached for study participation, access involved extensive time and approvals. The first medical center approached, declined participation after numerous communications and interactions. The second medical center readily consented to study participation. A detailed cooperative agreement included: two Institutional Review Board approvals with HIPAA requirements, a criminal background check, RN licensure verification, CITI Completion certificate, clinical letter of support, notification of pending research (Department Directors signatures), and an information system user agreement with secure password. A clinical

preceptor was designated as an agency co-investigator for the study, a requirement of the Medical Center and the affiliated University IRB.

Emergency Department nursing charts were retrieved by the Medical Center Health Information Management internal report writer with convenience sampling of EHR (dates July 1, 2017 to July 29, 2018). A total of 216 ED charts were retrieved and screened for inclusion criteria with 98 charts excluded and 118 charts included in the study. Charts were excluded for subjects under 18 years of age (n = 33), sexual assault and/or domestic violence (n = 58), readmission for the violent crime trauma (n = 2), and missing data (n = 5).

Chart review began after orientation to the ED electronic health record with an RN Senior System Analyst. The Health Information Management Department Assistant Director facilitated orientation to the Department, entry security access and security details of the research report. An initial report of 182 existing patient charts (coded or billed), based on the research inclusion and exclusion criteria, were generated and loaded to an on-line queue for access and review by the researcher. The initial five charts were reviewed as a pilot of the code manual and were not included in the final study data. After charts were screened and some excluded, a second report (34 additional charts) was generated to meet the projected sample size. The retrieved electronic health records were reviewed on scheduled dates with computers in the Health Information Management Department training room. The hard copy on-line queue was coded to be anonymous. The hard copy was filed securely in the Health Information Management Department Assistant Director's office after each chart review date and at the end of data collection as required by the IRB protocol.

Results

Emergency Department Registered Nurse Demographics

Emergency Department registered nurse demographics were collected from an interview and survey with the Department Nurse Manager of the 45-bed unit Level II Trauma Center. These demographics are a background to the environment and characteristics of the ED RN staff that may support the study results. ED nurses were described by gender, age, education, and years of experience. ED nursing protocol, nursing education opportunities, and care for victims of violent crime were discussed as well. These characteristics are summarized in Table One.

Table 1

Nursing Staff Demographics $n = 58$

Age (years)	**Mean:** 40.5 Range: 21 to 60		
Gender			
	Female 39		67.2%
	Male19		32.8%
Years of Experience	Mean: 10.5 years Range: 2 to 21 years		
Nursing Education			
	Associate Degree	$n = 40$	69.0%
	Diploma	$n = 2$	3.4%
	BSN	$n = 14$	24.1%
	MSN	$n = 2$	3.4%
	SANE	$n = 0$	0
	Forensic nurse	$n = 0$	0

The ED registered nurse staff ($n = 58$) ranged in age from 21 to 60, the mean age was 40.5 years. Demographic details of the RN staff: 35% ($n = 20$) ages 20 to 30, 26% ($n = 15$) ages 31 to 40, 21% ($n = 12$) ages 41 to 50, and 19% ($n = 11$) ages 51 to 60. ED registered nurse experience ranged from 2 to 21 years, a mean of 10.5 years. Over half of the ED nursing staff had greater than 7 years' experience ($n = 30$, 51%), the remaining 48% (n= 28) had less than 6

years' experience and 25% (n= 14) had less than two years' experience. The ED registered nurses' education included Associate Degree (*n* = 40, 69.0%), Diploma (*n* = 2, 3.4%), BSN (*n* = 14, 24.1%), and MSN (*n* = 2, 3.4%). Clinical nurse specialists, forensic nurses, and SANE (Sexual Assault Nurse Examiner) were not currently ED nursing staff. One RN was in the process of becoming a Sexual Assault Nurse Examiner. Advanced practice nurses were primary care providers with the medical staff.

Emergency Department education offered for the nursing staff included crisis intervention, physical assessment and psychological care for ED patients. Emergency Department nursing protocol specific to early interventions, psychological assessment for all victims of violent crime was not presented except the established psychological assessment for victims of interpersonal violence. The electronic health record did include crisis intervention as a structured data selection option.

Study Subjects

From the study sample of 118 charts, approximately three-fourths of the patients (*n* = 88, 74.6%) were male and one-fourth (*n* = 30, 25%) were female. Female ages ranged from 20 to 57 and male ages ranged from 20 to 64. The mean age of the patients was 36.86 with a total range of 20 to 64 years. One patient had a previous diagnosis of PTSD and other patient demographics including socioeconomic background, education, race and ethnic background were not documented by ED nurses and therefore not recorded or abstracted from the nursing notes. This data was not selected by the nurses in their assessment options in the electronic health record or narriative notes.

Violent Crime Descriptive Data

Descriptive chart data of the violent crime experienced by victims included: robbery (*n* = 5, 2%), assault with a weapon (*n* = 19, 6%), assault with other physical force (*n* = 30, 14%) such striking with a fist, and assault with unknown force (*n* = 83, 70%). The violent assault incident occurred at home (*n* = 24, 11%), not at home (*n* = 42, 36%), workplace (*n* = 9), bars (*n* = 8), jails (*n* = 14), car (*n* = 2;), street (*n* = 9), mental health facility (*n* = 2), and unknown or not documented location (*n* = 57, 48%). All patient victims of violence were treated in the ED, 70% arrived by ambulance (*n* = 85), with 30% unknown transportation or not documented (*n* = 38). Substance use was noted in 36 charts, ethanol alcohol (*n* = 31, 15%) and other illegal substance (*n* = 5, 2%).

Only about four percent of the crime victims (*n* = 4, 3.4%) were assaulted in a robbery. The distribution of ages was equally distributed across gender ($t(51.986) = 0.904$, p = .370), robbery ($t(3.140) = -0.248$, p = .820, and weapon ($F(2, 115) = 0.722$, p = .488).

The descriptive information about the patients is included in Table 2.

Table 2

Descriptive information of Emergency Department Patient Victims of Violent Crime

(Mean ± standard deviation)

Age (years)	**Mean: 36.86 ± 11.04** **Range: 20 – 64**
Gender	
Male	88 (74.6%)
Female	30 (25.4%)
Robbery	
Yes	4 (3.4%)
No	114 (96.6%)
Weapon	
Yes	18 (15.3%)

Physical Force	83 (70.3%)
Other	17 (14.4%)

To address the research questions, data was analyzed by comparison of dependent variables documented and not documented in the nursing electronic health record. Chart review showed physical assessment was documented in 100% of nursing notes compared to psychological assessment (TAS domains) documented in fewer than 50% of the charts reviewed. Of the Triage Assessment Scale (TAS) variables, physical transgression was documented most often in 67% (*n* = 79) of the charts compared to psychological transgression documented in less than 50% of the charts (*n* = 55, 46.6%). Five other variables were documented in less than 10% of the charts reviewed and all of the TAS (domains) dependent variables were documented on an average of 12.6% times.

ED nurses did document referral with other professionals, most often with law enforcement in thirty-one charts (25%) to the least documented, spiritual resources (*n* = 2, 2%). In addition to law enforcement and spiritual resources, referrals with other professionals included physician's assistant, nurse practitioner, psychologist, psychiatrist, social worker, chaplain, and criminal justice. Of the charts reviewed, family and significant other(s) presence was documented in 21.9% (*n* = 25) and 79% *n* = 93) not documented (Table 3).

Table 3

Dependent Variables Documented and Not Documented *N* = 118

Variable	Documented	Not documented
Anger	*n* = 34 (28.8%)	*n* = 84 (72.2%)
Anxiety	*n* = 27 (22.8%)	*n* = 91 (77.1%)
Sadness	*n* = 12 (10.2%)	*n* = 106 (89.8%)

Calm	*n* = 3 (2.5%)	*n* = 115 (97.5%)
Avoidance	*n* = 11 (9.3%)	*n* = 107 (90.7%)
Immobility	*n* = 1 (0.9%)	*n* = 117 (99.2%)
Physical Transgression	*n* = 79 (67%)	*n* = 39 (33.1%)
Psych Transgression	*n* = 55 (46.6%)	*n*= 63 (53.4%)
Social Transgression	*n* = 3 (2.5%)	*n* = 115 (97.6%)
Concentration	*n* = 2 (1.7%)	*n* = 116 (98.3%)
Family present	*n* = 25 (21.9%)	*n* = 93 (78.8%)
Social Resources	*n* = 5 (4.2%)	*n* = 113 (95.8%)
Mental Resources	*n* = 9 (7.6%)	*n* = 109 (92.4%)
Spiritual Resources	*n* = 2 (1.7%)	*n* = 116 (98.3%)
Legal Resources	*n* = 3 (2.5%)	*n* = 115 (97.5%)
Law Enforcement resources	*n* = 32 (27.1%)	*n* = 86 (72.9%)

Logistic regression analysis

Direct logistic regression analyses were performed on report status (documented or not documented) for all sixteen dependent variables with four predictors: age (AGE), gender (GENDER), weapon (WEAPON), and robbery (ROBBERY). Of the sixteen dependent variables, the only model that emerged statistically significant and met the assumptions for logistic regression analyses was for social transgression. (See Data Supplement Appendix F). Analysis was performed using R, a language and environment for statistical computing and graphics.

A test of the full model for social transgression with all four predictors against a constant-only model emerged statistically reliable, χ^2 (5, N = 118) = 12.62, $p < .05$. The results indicate

that the set of predictors reliably distinguished between social relationship transgression being reported or not reported in the nursing documentation. The variance in report status accounted for is moderate with McFadden's rho = 0.451, df = 6. Prediction success (using 0.5 as the threshold) was impressive with 116 of 118 cases (98.3%) accurately classified or predicted correctly with sensitivity and specificity values of 0.33 and 1.00, respectively.

Table 4 displays the regression coefficients, Wald statistics, odds ratios, and 95% confidence intervals for odds ratios for each of the four predictors. According to the Wald criterion, no variable reliably predicted reporting status; however, age emerged with the lowest p-value, z = 1.67, p = .095. The odds ratio of 0.091 shows a very small change in the likelihood of reporting on the basis of a one-unit change in Age. Variance Inflation Factors (VIF) values ranged from 1.18 (ROBBERY) to 1.42 (WEAPON), indicating that multicollinearity is not a problem. Examination of the significance levels of the additional predictor created by examining the interaction between AGE and the log of itself (Hosmer & Lemeshow, 1989) indicates that a linear relationship between AGE and the logit of social relationship transgression may be assumed (p = .68).

Table 4

Logistic Regression Analysis of Reporting Status for Social Transgression

Variables	*B*	Wald (z-ratio)	Odds Ratio	p-value	95% CI Lower	95% CI Upper
AGE	0.183	1.668	1.201	.095	1.018	1.644
GENDER	-2.397	-1.477	0.091	.140	0.002	1.783
WEAPON (Phys)	-2.292	-1.337	0.101	.181	0.002	3.483
WEAPON (Other)	-19.005	-0.005	0.000	.996	N/A	0
ROBBERY	3.721	1.437	41.306	.151	0.416	54652.440
(Constant)	-9.181	-1.882	0.000	.060	N/A	0

The standard logistic regression analysis was followed with a backward elimination logistic regression analysis. Beginning with the full set of predictor variables, after 8 Fisher Scoring iterations a statistically reliable reduced model emerged, χ^2 (2, N = 118) = 8.13, $p < .05$ with two predictors: AGE and ROBBERY. Akaike's information criterion (AIC) dropped from 27.336 (full model) to 25.828 (reduced model), indicating an improvement on model fit. The variance accounted for in reporting status remained relatively unchanged with McFadden's rho = 0.291, df = 3. Prediction success was unchanged.

Table 5 displays the regression coefficients, Wald statistics, odds ratios, and 95% confidence intervals for odds ratios for the remaining two predictors. According to the Wald criterion, ROBBERY (z = 2.008, $p < .05$) emerged as a significant predictor of reporting status. Sensitivity and specificity values remained unchanged.

Table 5

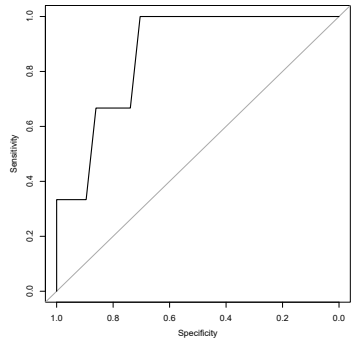
Logistic Regression Analysis of Reporting Status for Social Transgression, Reduced Model

Variables	*B*	Wald (z-ratio)	Odds Ratio	p-value	95% CI Lower	95% CI Upper
AGE	0.139	1.839	1.149	.066	1.013	1.378
ROBBERY	3.204	2.008	24.631	.045	0.077	813.67
(Constant)	-10.237	-2.608	0.000	.009	0.000	0.013

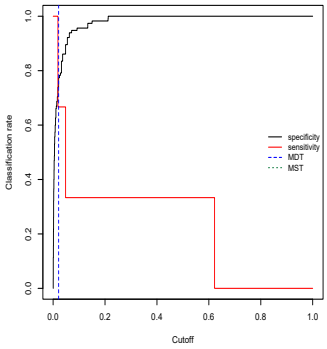
Since the two-predictor model was an improvement over the four-predictor model, and the percentage of accurately classified cases did not change, the later model was used to determine cut off points to create adequate sensitivity and specificity. A receiver operating characteristic graph (ROC), which has been shown to be a reliable technique for visualizing, organizing, and selecting classifications based on performance, is presented in Graph 1. Swets (1988) found that ROC analysis could be extended for use in visualizing and analyzing behavior of diagnostic systems and for determining accuracy of a test using the area under the curve.

For the set of predictors, the area under the curve was found to be 0.867, which indicates a good accuracy classification for this diagnostic. Graph 2 shows a plot of model sensitivity and specificity for various cutoffs. Using R and the minimized difference threshold (MDT), it was found that 0.02 is the value that minimizes the absolute difference between sensitivity and specificity. The values of the sensitivity and specificity at 0.02 were 0.739 and 0.667, respectively.

Graph 1 *ROC Curve, reporting status*



Graph 2 *Plot of model sensitivity and specificity for various cutoffs*



Chapter 5

Introduction

Recognition of the significance of early interventions and the importance of addressing psychological trauma for the victim of violence is of utmost importance for quality of life and the victim's future. The serious impact of psychological trauma on victims of violent crime supports the purpose of this study, to determine whether Emergency Department (ED) nurses assess this trauma and initiate early interventions and referral for ongoing psychological care. With a non-experimental descriptive design, this quantitative study used retrospective chart reviews to determine whether emergency department nurses had documented psychological trauma assessment and/or early intervention care for adult trauma victims of violent crime. Data from emergency department records and nursing notes of adult survivors of violent crime, was analyzed with descriptive and inferential statistics.

Summary of Findings

Discussion: Research Question One

The first research question, "Do Emergency Department nurses caring for adult victims of violent crime assess for psychological trauma?" was addressed by analysis of descriptive data in nursing charts. Analysis of psychological assessment in nursing notes for victims of violent crime compared the documented and not documented Triage Assessment Scale (TAS) domains (affective, behavioral, cognitive, and referrals). Chart review showed that physical assessment was documented in all nursing notes compared to psychological assessment (TAS domains) documented in fewer than half of the charts reviewed (Table 3). Additionally, the crisis intervention charting option was not documented in any of the reviewed nursing notes. Nursing

protocol and educational opportunities for early interventions, psychological assessment of all victims of violent crime, were not offered for the ED nursing staff.

As with previous research findings, this retrospective chart review showed that the emergency department's care for victims' of crime seemed concerned only with physical injuries. A long standing and often unspoken challenge of many ED nurses is the unknown protocol for emergency psychological care of victims of violent crime (McBrearty, 2011). Many nurses are not prepared to identify and care for patients who are victims of violence (Wick, 2000). Knowledge of ED nurses' views of psychological care and early interventions for victims of violent crime is limited. ED nursing is challenged to move beyond care for the immediate physical trauma (Rahmqvist & Benzein, 2014) to emphasize holistic care with early interventions for all victims of violent crime, preventing PTSD.

Logistical regression analysis results showed statistical significance with the dependent variable *social relationship transgression*. The analysis indicated that the set of predictors reliably distinguished between the dependent variable, social relationship transgression, being reported or not reported in the nursing documentation. This variable was not documented in most charts reviewed. Statistical significance was not demonstrated with the other dependent variables.

Robbery did emerge as a predictor of social transgression. Physical attack and robbery are specifically mentioned in the DSM IV (American Psychiatric Association [APA], 1994) as types of stressors that are capable of producing PTSD, and long term psychological trauma. Traumatic and posttraumatic variables most associated with the development of PTSD include trauma severity, traumatic stress symptoms, perceived life threat, dissociation, reported lack of social support after the traumatic event, and subsequent life events (Brewin, Andrews, &

Valentine, 2000; Ozer, Best, Lipsey, & Weiss, 2003). Social relationship transgression is significant as a risk for victims of violent crime. Assessing this risk and including social support as an integral part of interventions for victims is crucial for recovery to diminish the negative impact of the violent crime. Findings encourage that social service agencies be considered, that social support has been shown to have a positive relationship encouraging victims to seek professional help (Green & Pomeroy, 2007). Protective factors that encourage thriving after trauma or adversity emphasize the development and/or enhancement of protective factors such as ego resiliency and supportive relationships.

The electronic health record is another consideration that may impact ED nursing psychological assessment documentation. The standardized computer chart options focused on physical symptoms identified under general assessments. "Alert and oriented" was an option frequently charted by ED nurses under neurological status as a physical assessment. This charting option did not include psychological assessment such as affect or mood. Narrative notes that described patient's psychological responses such as "won't cooperate, agitated, screaming, yelling, or cursing", were supplemental and infrequently documented. As previously acknowledged, the crisis intervention chart option was not selected or documented. This finding was unexpected and in contrast to nurses' caring role, close contact and supportive relationships with patients.

Emergency nurses' clinical practice is challenging and difficult with feelings of great responsibility and vulnerability. Langeland and Sørlie, 2011 concluded that ED nurses are confronted with many difficult situations and challenged to create supportive relationships with clients while rapidly knowing and skillfully initiating emergency care. The electronic health care documentation format of structured data fields often guides the charting with select options from

drop-down menus, limiting the qualitative details such as emotional responses. The standardized electronic charting directs the nurse to generalized assessments and may limit narrative notes that could include the nurse's observations of patient's psychological responses to the violent crime. Clinical documentation burden and electronic health record (EHR) navigation challenges, such as locating information in a fragmented structured-data method, may lead to incomplete documentation (Embi et al., 2013).

Research by Collins et al. (2013) has shown that nurses use narrative notes to convey important information and to communicate concern for the patient. Additionally, Hall and Powell, 2011 identified that psychiatric nurses use narrative notes to document meaningful and subjective details. The use of narrative notes communicates information that may not fit in an EHR structured field (Finn, 2015). The documentation reviewed in the study was comprised of computerized structured data fields with few unstructured narrative notes. Clinical documentation burden and challenges of EHR may impact the charting of psychological assessment for victims of violent crime and pose opportunities for future research.

Demographic data study results identified the educational preparation for the majority of the ED nurses was an associate degree (ADN). Although this data was unexpected, it may be explained by the Medical Center's Associate Degree in Nursing Program. The Medical Center is also affiliated with a University Nursing Bachelor and master's degree Programs. Historically, the hospital offered a Diploma in Nursing. This demographic data may have implications for outcomes of this study, patient assessment and care. Studies suggest that hospitals with a greater concentration of BSNs have lower patient mortality than hospitals with higher numbers of ADNs (Andrews, 2014). Educational preparation of nurses is key to effective participation in prevention, assessment, treatment and care of victims and survivors of violence. Societies

problems of increasing violence are relevant for nursing education curriculum. Nursing programs currently do address interpersonal violence, women, child and elder abuse, but development of curriculum is needed that addresses the nursing care of all victims of violent crime beyond emergency physical care.

Emergency Department Nursing staff education about victims of violence is recommended to include initial interventions, prevention, detection, and appropriate referrals. Uncounted numbers of ED nurses are not educated about the needs for victims of violent crime. Position statements by professional nursing organizations support the education of nurses in assessment and treatment of victims of violence (American Association of Colleges of Nursing, 1999; American Nurses Association, 2000; Emergency Nurses Association, 1998). Despite formal support and recommendations, these nursing skills and protocols are still lacking for all victims of violence in the trauma setting.

Demographic data results identified that ED nursing protocol were not available to guide early interventions and psychological assessment for all victims of violent crime. According to Rahmqvist, et al. (2014) policies, protocol, and education for nursing care for all victims of violence and their family are needed for ED nurses. ED nurses are aware of this need and expressed the limitations of current protocol and policies that exclude family members and focus specifically on interpersonal violence of women and children. The nurse must communicate with other healthcare providers when documenting client assessments, treatments and evaluations. Written documentation must be accurate, timely and thorough and as many nurses know, "if it's not written, it's not done" (Snow, 2009).

Discussion: Research Question Two

The second research question, "Do Emergency Department nurses caring for adult victims of violent crime refer to other health care professionals for holistic care?" was addressed by nursing chart analysis of the descriptive data. Emergency Department nurses documented collaboration with other professionals for patient referral and care including social, spiritual, mental health, legal resources, and law enforcement. Emergency Department nurses documentation showed referral to other professionals, most often with law enforcement and least often with spiritual resources. Law enforcement was documented most often when the police escorted the victim of violence to the to the ED. In two charts, narrative notes documented patients' request for law enforcement presence for security. In two charts, spiritual support was initiated by the physician. Social support for victims encourages recovery from psychological trauma and is a significant aspect of interventions through access to reparation and restorative justice services (Alvidrez et al., 2008).

Family and significant others presence in the ED with the victim of violent crime was documented in less than a fourth of the nursing charts reviewed. Family presence was possibly recorded in the chart by the admission staff and not in the nursing notes. Significance of family and social support is discussed in the literature as integral for well-being for victims of violent crime and their families (Alvidrez et al., 2008). Alvidrez (2008) noted that few nurses studied had previous education about family involvement in care and most knew of no protocols addressing family participation in victims' care. Nurses' views and attitudes of victims' emergency care and involvement of family members in assessment and care is important, with nurses having a key role in that care. The holistic model requires interventions that support reconstitution not only of the physiological, psychological, spiritual, sociocultural, and developmental dimensions (Neuman, 2002).

Study Limitations

Limitations to this retrospective chart review included challenges in access to the health care agency and the electronic health record. Potential abstraction and management errors were a greater possibility with one researcher reviewing data. Other limitations with data collection were resolving ambiguous data, incomplete or missing documentation and data. Additionally, a limitation could exist based on the quantitative method seeking to determine findings that were identified in the study as potential qualitative details in nursing notes. Researcher stress from personal experience as a victim of violent crime were possible as well.

Implications for ED Nursing Clinical Practice and Research

The research findings are consistent with the literature, supporting the need to develop ED nursing practice, psychological assessment and early interventions for adult victims of violent crime. The research findings further reflect the literature, that a need exists for specific RN

education designed for early interventions and psychological assessment for all adult victims of violent crime beyond the existing protocols for victims of interpersonal violence. ED early intervention policies and protocols for adult victims of violent crime are essential to guide nursing care standards and practice and warrant development. Existing crisis intervention theoretical frameworks could be used to establish standard ED nursing protocols for clinical practice for victims of violent crime (Eldredge, 2008). Additionally, opportunities exist to create electronic health record formats that support qualitative data and narrative notes that reflect the assessment and documentation of the client's psychological needs.

Summary

This research explored the ED nurse's role in assessing the psychological needs of adult victims of violent crime, early interventions with holistic nursing care. Data was collected from ED nurses' documentation focusing on their care with victims of violent crime. ED nurses' documentation identified that their assessment and documentation of adult victims of violent crime focused predominately on physical care with limited emphasis on psychological needs. Retrospective ED nursing chart review confirmed the need for developing standard early intervention protocol and education for ED nursing practice. This nursing research supports the need for further empirical evidence for Emergency Department nursing care for all victims of violent crimes.

The research design and methodology of this study supported exploration of the ED nurse's role in early intervention (psychological assessment) for adult victims of violent crime. The descriptive approach, data abstraction of ED nurse's charting, assessment of trauma victims of violent crime, identified documented physical assessment and limited psychological

assessment and referral. These findings are consistent and supported by previous research described in the literature search. Nursing RN demographics including education, experience, early intervention protocol, EHR documentation format, and referral were analyzed for significance to address the research questions. Referral with other professionals was noted most often with law enforcement compared to limited psychological referrals. Nurses do establish an environment for best practice by initiating collaboration with other health care professionals.

Nursing theory suggests the importance of the nurse's role in enhancing the psychological well-being of trauma clients (Benner & Wrubel, 1989; Newman, 2002; Polk, 1997; Tusaie & Dyer, 2004; DOJ, 2012). Prevention of long-term psychological trauma by ED nursing assessment and early intervention is holistic care, a best practice for survivors of violent crime. Few studies identify the nurse's role in early intervention care or relate to the nursing assessment of psychological trauma of victims of violent crime (Rahmqvist Linnarsson & Benzein, 2014). Results showed that ED nursing policies and protocols were not developed for early interventions specific to adult victims of violent crime to guide this nursing care. Today, screening for violence is a minimum standard of care for all patients (Sekula, 2005). Existing crisis intervention theoretical frameworks could be used to establish standard ED nursing protocols for clinical practice for victims of violent crime (Eldredge, 2008).

Nursing theories identify psychological assessment and early interventions as important nursing care for patients experiencing stress. In Neuman's System Model, nursing interventions, primary prevention occurs before the stressor invades the system; secondary prevention occurs after the system has reacted to an invading stressor (Neuman, 2002). Psychological care is further described by Benner and Wrubel (1989) in their model on caring as guiding through emotional changes with holistic competent care.

Conclusions

Research challenges the ability of quantitative data to capture the real story and needs of victims of violent crime with a risk of being haunted for a lifetime. Future research to include both qualitative and quantitative data is important to understand the challenges for nurses in caring for all victims of violent crime. Many nurses do not assess for psychological trauma and do not refer for psychological care.

1. The increasing public health crisis of violent crimes in the United States demands our attention in health care, that we address the issue of how to care for these victims with a holistic approach, including both physical and psychological care.
2. PTSD, as we now know the term, has been reflected throughout time over centuries, documented in the journal of a crusader and noble Warrior who identified the stress and psychological trauma of his violent experiences of battle.
3. Psychological intervention has been studied, beginning with theories from no intervention as best to the timing of the intervention would be most timely and what intervention would be best. Current research shows early intervention can reduce the risk for trauma of the violent crime and prevent or minimize PTSD.
4. Current models of documentation, the electronic health record, directs the nurse to document objectively and often excludes or does not encourage qualitative assessment and documentation from a psychological emotional perspective of the client's needs. Individualized care may not be clearly identified with the selections and pull down options directed by the electronic documentation format. Specific protocol development including details for psychological assessment options in the EHR and narrative notes is important.
5. The Sexual Assault Nurse Examiner for interpersonal client victims of violent crime could be used as a model to develop protocol for other adult victims of violent crime. SANE is a respected and established model for assessment by nurses in emergency departments.
6. The Department of Veterans Affairs long term experience with holistic care for victims of violence, soldiers of war, is another established model that could be related to victims of violent crime in the civilian population for PTSD assessment in emergency departments. The Veterans Affairs Administration model is holistic, caring, and respectful of the individual. The VA care is established in practice and evidence.
7. Nursing assessment of psychological trauma victims of violent crime has been studied in mostly qualitative research. The studies have identified that nurses are aware and conscientious of psychological trauma but are unsure or not educated in how to approach the client. Most care at this time in the emergency department is physical with limited knowledge and skill for psychological care and referral.

8. Development of protocol and educational curriculum for emergency department nurses and nursing students should include psychological assessment for all victims of violent crime.
9. Post Traumatic Stress Disorder is distinguished from other mental health diagnoses, often by a very clear point of onset, the traumatic event, and by a failure of the normal response to resolve the distress. These characteristics clarify the prospect of early interventions for PTSD (Zohar, Juven-Wetzler, Sonnino, Cwikel-Hamzany, & Balaban, 2011).

While research on emergency nurses and victims of violence exists, psychological assessment and early intervention for victims of violent crime by emergency department (ED) nurses is minimally addressed (Rahmqvist & Benzein, 2014). Existing nursing research primarily focuses on victims of interpersonal violence and forensic nursing care. Further research is needed to explore ED care provided by nurses related to psychological assessment and early intervention for all victims of violent crime. This study supports past research identifying the need for early interventions for victims of violent crime and nurses caring role. A need for the development of protocol and charting formats that support this care is identified in these research findings as an ongoing concern for ED nurses and victims of violent crime. The time for development of nursing early intervention protocols for care for all ED survivors of violent crime is now. The urgency and risks for these victims are too high to not address their psychological needs with a holistic approach in ED nursing care.

References

Abdool, N., Curationis, M., & Brysiewicz, P. (2009). A description of the forensic nursing role in emergency departments in Durban, South Africa. *Journal of Emergency Nursing, 35*(1), 16-21.

Adler, A., Castro, C., & McGurk, D. (2009). Time-driven battle mind psychological debriefing: A group-level early intervention in combat. *Military Medicine, 174*(1), 21-8.

Agaibi, C., & Wilson, J. (2005). Trauma, PTSD, and Resilience: A review of the literature. *Trauma, Violence, & Abuse, 6*(3), 195--215.

Agorastos, A., Marmar, C., and Otte, C. (2011). Immediate and early behavioral interventions for the prevention of acute and posttraumatic stress disorder. *Current Opinion in Psychiatry, 24*(6), 526-532. doi: 10.1097/YCO.0b013e32834cdde2.

Ahern, N. R., Ark, P., & Byers, J. (2008). Resilience and coping strategies in adolescents. *Paediatric Nursing, 20*(10), 32-36.

Ai, A., & Park, C. (2005). Possibilities of the positive following violence and trauma: informing the coming decade of research. *Journal of Interpersonal Violence, 20*(2), 242-250.

Alvidrez, J., Shumway, M., Boccellari, A., Green, J. D., Kelly, V., & Merrill, G. (2008). Reduction of state victim compensation disparities in disadvantaged crime victims through active outreach and assistance: A randomized trial. *American Journal of Public Health, 98*(5), 882-888.

American Association of Colleges of Nursing. (1999). Violence as a public health problem. *Leading Initiatives.* from http://www.aacn.nche.edu/publications/position/violence-problem

American Nurses Association. (1997). *Scope & standards of forensic nursing practice*.

Washington DC: International Association of Forensic Nurses and the American Nurses Association.

American Nurses Association. (2000). *Position statement on violence against women*. Washington, DC: Author.

American Nurses Association and International Association of Forensic Nurses. (1997). *Scope & standards of forensic nursing prac*tice. Washington, DC: Author.

American Psychiatric Association. (1980). *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed.). Washington, DC: Author.

American Psychiatric Association. (1994). *Diagnostic and Statistical Manual of Mental Disorders, DSM-IV Stressor Criterion* (4th ed.). Washington, DC: Author.

American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders* (Fourth: DSM-IV-TR ed.). Washington DC: Author.

American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). Washington, DC: Author.

Andrews, N., (2014). Advancing toward an 80% BSN workforce by 2020. *American Nurse Today*, 9(1).

Assid, P. (2005). Evidence collection and documentation: Are you prepared to be a medical detective? *Topics in Emergency Medicine, 27*(1), 15–26.

Beall, L. (1997). Post-traumatic stress disorder: A bibliographic essay. *CHOICE.* 34(6), 917-930.

Benner, P. & Wrubel, J. (1989). *The primacy of caring stress and coping in health and illness*. Menlo Park, CA; Addison-Wesley.

` Benner, P. (1984). From novice to expert: Excellence and power in clinical nursing

practice. Menlo Park, CA: Addison-Wesley.

Bishop, S., Lau, M., Shapiro, S., Carlson, L., Anderson, N., Carmody, J., Devins, G. (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice*. 11, 230-241.

Bisson, J. (2006). Disseminating early interventions following trauma. *Journal of Traumatic Stress, 19*(5), 585-586-595.

Bomyea, J., and Lang, A. (2012). Emerging Interventions for PTSD: Future Directions for Clinical Care and Research. *Journal of Neuropharmacology, 62*(2), 607-616.

Bonanno, G. (2004). Loss, trauma, and human resilience. *American Psychologist, 59*(1), 20-28.

Bonanno, G. (2005). Resilience in the face of potential trauma. *Current Directions in Psychological Science, 14*(3), 135-138.

Bonanno, G., Galea, A., Bucciarelli, D., & Vlahov. (2006). What predicts psychological resilience after disaster? The role of demographics, resources, and life stress. *Journal of Consulting and Clinical Psychology, 75*(5), 671-682.

Bonanno, G., and Keltner, D. (1997). Facial expressions of emotion and the course of conjugal bereavement. *Journal of Abnormal Psychology,* 106, 126-137.

Brewin, C. R., Andrews, B., & Valentine, J. (2000). Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. *Journal of Consulting and Clinical Psychology, 68*, 748-766.

Bryant, R. A., Harvey, A., Guthrie, R., & Moulds, M. (2000). A prospective study of psychophysiological arousal, acute stress disorder, and posttraumatic stress disorder. *Journal of Abnormal Psychology, 109*(2), 341-342-344.

Bryant, R. A. (2000). Cognitive behavioral therapy of violence-related posttraumatic stress

disorder. Aggression and Violent Behavior Carlier, I.V.E., Voerman, A.E., & Gersons, B. (2000). The influence of occupational debriefing on post-traumatic stress symptomatology in traumatized police officers. British Journal of Medical Psychology, *5*(1), 79-80-97.

Bryant, R. A., Sackville, T., Dang, S. T., Moulds, M., & Guthrie, R. (1999). Treating Acute Stress Disorder: An evaluation of cognitive behavior therapy and counseling techniques. *American Journal of Psychiatry, 156* 1780-1786.

Bryant, R. A., Foley, E. R., & Percival, E. C. (2008). The role of RCNA in promoting transcultural nursing as a discipline of study, research, practice and management in Australia. *Contemporary Nurse: A Journal for the Australian Nursing Profession, 28*(1-2), 3-11. doi: 10.5172/conu.673.28.1-2.3

Campfield, K. M., and Hills, A. M. (2001). Effect of timing of critical incident stress debriefing (CISD) on posttraumatic symptoms *Journal of Traumatic Stress, 14*, 327-340.

Cannon, W. (1914). Emergency function of adrenal medulla in pain and major emotions. *American Journal of Physiology, 44*, 5-63.

Caplan, G. (1961). An approach to community mental health. New York: Grune & Stratton.

Caplan, G. (1964). *Principles of preventive psychiatry.* New York: Basic Books.

Department of Health and Human Services. (1999). The Surgeon General's call to action to prevent suicide. Washington, DC: Author.

Carlier, I. V. E., Voerman, A. E., & Gersons, B. P. R. (2000). The influence of occupational debriefing on post-traumatic stress symptomatology in traumatized police officers. *British Journal of Medical Psychology*, 73-87-93.

Casaez-Levison, R. (1992). An empirical investigation of the coping strategies used by victims

of crime: Victimization redefined. In E. Viano (Ed.), *Critical Issues in Victimology.* (p. 46-57). New York: Springer Publishing Company.

Colaizzi, P. (1978). Psychological research as a phenomenologist views it. In: Valle, R. S. & King, M. (1978). Existential Phenomenological Alternatives for Psychology. Open University Press: New York.

Collins, S., Cato, K., Albers, D., Scott, K., Stetson, P., Bakken, S., & Vawdrey, D. (2013). Relationship between nursing documentation and patients' mortality. *American Journal of Critical Care. 22*(4). 306-313. doi: 10.4037/ajcc2013426

Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing, IOM. (2010). The Future of Nursing: Leading Change, Advancing Health (pp. 700). Washington, D.C.: Institute of Medicine of the National Academies.

Connor, K. (2006*)*. Assessment of resilience in the aftermath of trauma. *Journal of Clinical Psychology.* 67, 46-49.

Connor, K., & Davidson, J. (2003). Connor-Davidson Resilience Scale.

Cowgur, A. (2006). *The Influence of caring for trauma victims on the development of vicarious traumatization in the emergency nurse.* (Doctor of Philosophy), University of Arkansas, University of Arkansas. (3238369)

Crime Report. (1982). Final Report of the President's Task Force on Victims of Crime. Washington, DC: The Office for Victims of Crime. Office of Justice Programs, U.S. Department of Justice.

Curtis, W., & Cicchetti, D. (2003). Moving research on resilience into the 21st century: Theoretical and methodological considerations in examining the biological contributors to resilience. *Development and Psychopathology, 15*, 773-810.

Davidson, J. (1997). Davidson Trauma Scale. *http://www.psychtest.com/CURR01/CATLG006.HTM* (Journal, Electronic).

Davis, K. M., Stark, S. L., & Stewart, L. A. (2011). A resilience-oriented treatment for posttraumatic stress disorder: results of a preliminary randomized clinical trial. *Journal of Traumatic Stress, 24*(5), 591-595.

Donabedian, A. (1980). *Explorations in quality assessment and monitoring, Volume 1: The definition of quality and approaches to its assessment.* Ann Arbor, MI: Health Administration Press.

Ehlers, A., & Clark, D. M. (2003). Early psychological interventions for adult survivors of trauma: A review. *Biological Psychiatry* (53), 817-818-826.

Eldredge, K. (2008). Assessment of trauma nurse knowledge related to forensic practice. *Journal of Forensic Nursing, 4*(4), 157-158.

Embi, P., Weir, C., Efthimiadis, E., Thielke, S., Hedeen, A., & Hammond, K. (2013). Computerized provider documentation: findings and implications of a multisite study of clinicians and administrators. *Journal of American Medical Informatics Association, 20*, 718-726. doi: 10.1136/amiajnl-2012-000946

Emergency Nurses Association. (1998). Emergency Nurses Association position statement. Forensic evidence collection. *Journal of Emergency Nursing, 25*(4), 38A.

Federal Bureau of Investigation, & Criminal Justice Information Services. (2010). Violent crime in the United States. Washington. DC: Department of Justice.

Federal Bureau of Investigation. (2011). Uniform Crime Reporting (Vol. Table 4). Washington DC: Department of Justice.

Finn, C. (June 2015). Narrative nursing notes in the electronic health record: A key communication tool. *Online Journal of Nursing Informatics (OJNI), 19*(2).

Foa, E. (2006). Psychosocial Therapy for Post Traumatic Stress Disorder. *Journal of Clinical Psychology, 67*(2), 40-45.

Forneris, C., Gartlehner, G., Brownley, K. A., Gaynes, B. N., Sonis, J., Coker-Schwimmer, E., Lohr, K. N. (2013). Interventions to prevent post-traumatic stress disorder: A systematic review. *American Journal of Preventive Medicine, 44*(6), 635-650.

Fox, J., & Zawitz, M. (2009). Homicide trends in the United States. Washington D.C.: Office of Justice, Bureau of Justice Statistics.

Friedman, M., Keane, T., & Resick, P. (2007). *Early intervention for trauma. Handbook of PTSD: Science and Practice*. New York: Guilford Press.

Fulton, D., & Assid, P. (2006). Evidence collection in the emergency department. In V.A. Lynch (Eds.). *Forensic Nursing* (pp. 570-577). St. Louis, MO: Elsevier Mosby.

Gehrling, K. & Memmott, R. (2008). Adversity in the Context of the Neuman Systems Model. *Nursing Science Quarterly*, 21(2), 135-137.

Gilboa-Schechtman, E., & Foa, E. (2001). Patterns of recovery from trauma: The use of intraindividual analysis. *Journal of Abnormal Psychology, 110*(3), 392-393-400.

Gilgun, J. (2005). Evidenced Based Practice, Descriptive Research the Resilience Schema-Gender Based Functioning Assessment. *British Journal of Social Work, 35*, 383-862.

Gillespie, B., Chaboyer, W., & Wallis, M. (2007). Resilience a survival tool for the nineties. Development of a theoretically derived model of resilience through concept analysis. *Contemporary Nurse, 25*(1), 124-135.

Gillespie, C., Phifer, J., Bekh, B., & Ressler, K. (2009). Risk and Resilience: Genetic and Environment influences on development of stress response. *Depression and Anxiety, 26*(11), 984-985-992.

Gradus, J. (2010). U.S. national comorbidity survey replication: Prevalence of PTSD. Retrieved: National Center for PTSD.

Green, D., & Diaz, N. (2007). Predictors of Emotional Stress in Crime Victims: Implications for Treatment. *Brief Treatment and Crisis Intervention* (7), 194-195-205.

Green, D., & Pomeroy, E. (2007). Crime Victims: What is the role of social support. Journal of Aggression, Maltreatment and Trauma. *Journal of Aggression, Maltreatment and Trauma, 15*(2).

Green, D., & Roberts, A. (2008). *Helping victims of violent crime: An introduction.* New York: Springer Publishing Company, LLC.

Green, D., Streeter, C., & Pomeroy, E. (2005). A Multivariate model of the stress and coping process. *Stress, Trauma and Crisis* (8), 61-62-73.

Hagemann, O. (1992). Victims of violent crime and their coping processes. Critical issues in victimology. In E. Viano (Ed.), *International perspectives* (pp. 58-59-67). New York: Springer Publishing Co.

Hall, J., & Powell, J. (2011). Understanding the person through narrative. *Nursing Research and Practice, 2011.* doi: 10.1155/2011/293837

Hanson, R., and Self-Brown, S. (2010). Screening and Assessment of Crime Victimization and Its Effects. *Journal of Traumatic Stress, 23*(2), 207–214.

Hayes, S. C., Luoma, J., Bond, F., Masuda, A., and Lillis, J. (2006). Acceptance and Commitment Therapy: Model, processes, and outcomes. *Behaviour Research and*

Therapy, 44(1), 1-25.

Henderson, V. (Aug. 1964). The nature of nursing. *The American Journal of Nursing,* 64(8), 62-68.

Hill, J. (2009). Victimization, Resilience and Meaning-Making: Moving Forward in Strength. *Victims of Crime Research Digest. 2*.

Hill, J. K. (2003). Literature Review, Victims' Response to Trauma and Implications for Interventions: A Selected Review and Synthesis of the Literature (Vol. RR03VIC-2e). Canada: Department of Justice, Policy Centre for Victims Issues, Research and Statistics Division.

Hoff, L. A., & Rosenbaum, L. (1994). A victimization assessment tool: instrument development and clinical implications. *Journal of Advanced Nursing, 20*, 627–634.

Hoyt, C.A. (1999). Evidence recognition and collection in the clinical setting. Critical Care Nursing Quarterly, 22(1), 19-26.

International Association of Forensic Nurses. (2011). SAFEta.org Retrieved Dec. 21, 2015, from https://safetasource.site-ym.com/?page=ProtocolPDFSections

International Association of Forensic Nurses. (1997). Scope & standards of forensic nursing practice. Washington, DC: American Nurses Association. doi: 10.1111/jocn.12638

Kerchief, E. (1991). Crisis intervention in the emergency department. *Clinics of North America,* 9, 219–232.

King. (2008). Adversity and theory development. *Nursing Science Quarterly, 21*(12), 137.

Kothari, C., & Rhodes, K. (2006). Missed opportunities: emergency department visits by police-identified victims of intimate partner violence. *Annals of Emergency Medicine, 47*, 190-199.

Langeland, K., and Sørlie, V. (2011). Ethical challenges in nursing emergency practice. *Journal of Clinical Nursing, 20*, 2064–2070. doi: 10.1111/j.1365-2702.2010. 03606.x

Layne, C., Warren, J., Watson, P., Shalev, A., Friedman, M., Keane, T., & Resick, P. (2007). *Risk, vulnerability, resistance, and resilience: toward an integrative conceptualization of posttraumatic adaptation. Handbook of PTSD: Science and Practice*. New York: Guilford Press.

Lindemann, E. (1944). Symptomatology and management of acute grief. *American Journal of Psychiatry, 101*, 141-148.

Lindseth, A., & Norberg, A. (2004). Phenomenological hermeneutical research method. *Scandinavian Journal of Caring Sciences, 18*, 145–153.

Linley, P., & Joseph, S. (2004). Positive change following trauma and adversity: a review. *Journal of Traumatic Stress, 17*(1), 11-21.

Litz, B., Grey, M., Bryant, R., & Adler, A. (2002). Early intervention for trauma; Current status and future directions. *Clinical Psychology: Science and Practice, 9*, 112-134.

Lynch, V. (1995). Clinical forensic nursing: A new perspective in the management of crime victims from trauma to trial. *Critical Care Nursing Clinics of North America, 7*(3), 489-507.

Lyneham, J., Parkinson, C., and Denholm, C. (2008). Explicating Benner's concept of expert practice: intuition in emergency nursing. *The Journal of Advanced Nursing, 64*(4), 380–387 x. doi: 10.1111/j.1365-2648.2008.04799.

Løgstrup, K. (1956). *The ethical demand.* Gyldendal, Copenhagen: Fortress Press.

McBrearty, P. (2011). The lived experience of victims of crime. *International Emergency Nursing,* 19(1), 20-26.

McCracken, L. M. (1999). Living forensics: a natural evolution in emergency care. *Accident and Emergency Nursing,* 7, 211-216.

McNally, R. J., Bryant, R., & Ehlers, A. (2003). Does early psychological intervention promote recovery from posttraumatic stress? *Psychological Science in the Public Interest, 4*, 45-46-79.

Mendelsohn, B. (1963). *The Origin of the Doctrine of Victimology. Excerpta Criminologica*.

Mitchell, J. T. (1983). When disaster strikes . . . The Critical Incident Stress Debriefing process. Journal of Emergency Medical Services. *Journal of Emergency Medical Services, 8*, 36-37-39.

Mitchell, J. T. (2003). Major Misconceptions in Crisis Intervention. *International Journal of Emergency Mental Health, 5* (4), 185-197.

Mitchell, J. T. (2004). Characteristics of Successful Early Intervention Programs. *International Journal of Emergency Mental Health, 6*(4), 175-184.

Mulick, P., Landes, S., & Kanter, J. (2011). Contextual Behavior Therapies in the Treatment of PTSD: A Review. *The International Journal of Behavioral Consultation and Therapy, 7*(1), 23-32.

Myer, R., & Conte, C. (2006). Assessment for Crisis Intervention. *Journal of Clinical Psychology: In Session,* 62(8), 959-970.

Myer, R. A., Williams, R. C., Ottens, A. J., & Schmidt, A. E. (1992). Crisis assessment: A three-dimensional model for triage. Journal of Mental Health Counseling, 14, 137-148.

[National Center for Victims of Crime] (2012). Web Page.

National Institute of Health. (2009). Medline Plus. (Vol. 4, No. 1, pp 10-14) https://medlineplus.gov/magazine/issues/winter09/articles/winter09pg10-14.html

[National Organization of Victims Assistance] (2011). Web Page.

Neuman, B., & Fawcett, J. (Eds.). (2002). *The Neuman systems model* (4th ed.). Upper Saddle River, NJ: Prentice Hall.

NIH Office of Extramural Research. (2008). Protecting Human Research Participants. National Institutes of Health. Bethesda, Maryland.

Norris, F., Kaniasty, K., & Thompson, M. (1997). The psychological consequences of crime: Findings from a longitudinal population-based studies. In R. C. Davis, A. J. Lurigo, & W. G. Skogan (Eds.), *Victims of Crime* (Vol. 2nd ed., pp. 146-147-166). Thousand Oaks, CA: Sage Publications.

Nurses' views of forensic care in emergency departments and their attitudes, and involvement of family members. (2014). *Journal of Clinical Nursing*, 1-9.

Oaklander, M. (2015, June 1). Bounce Back. *Time*, 185(20), 36-42.

Office of Justice Programs. (2010). Bureau of Justice Statistics. Washington DC: United States Bureau of Justice Statistics.

Office of Justice Programs. (2011). Bureau of Justice Statistics. Washington DC: United States Department of Justice.

Oxford English Dictionary. (2010). Oxford England: Oxford University Press.

Ozer, E. J., Best, S., Lipsey, T., & Weiss, D. (2003). Predictors of posttraumatic stress disorder and symptoms in adults: a meta-analysis. *Psychological Bulletin, 129*(1), 52-53-73.

Paol, P. (1990). Introduction to the theory and practice of crisis intervention. *Quaderns de*

*Psicologia. 1*0, 21-140.

Parsons, J., & Bergin, T. (2010). The Impact of Criminal Justice Involvement on Victims' Mental Health. *Journal of Traumatic Stress, 23*(2), 182–188.

Pazar, J. P. (2006). The reliability of the Triage Assessment System for crisis intervention, DAI-B 66/12.

Planty, M., & Strom, K. (2007). Understanding the role of repeat victims in the production of annual US victims rates. *Journal of Quantitative Criminology, 23*(3).

Polk, L. Toward a middle-range theory of resilience. *Advances in nursing science, 1997*(19), 3-13.

Possemato, K. (2011). The current state of intervention research for posttraumatic stress disorder within the primary care setting. *Journal of Clinical Psychological Medical Settings, 18*(3), 268-280.

Rahmqvist, Linnarsson, J., & Benzein, E., and. (2014). Nurses' views of forensic care in emergency departments and their attitudes, and involvement of family members. *Journal of Clinical Nursing*, 1-9.

Riddell, K., and Clouse, M. (2004). Psychosocial Emergency Management Promotes Recovery. *International Journal of Emergency Mental Health, 6*(3), 135-145.

Roberts, N., Kitchiner, N., Kenardy, J., and, & Bisson, J. (2009). Early Interventions Following Traumatic Events Systematic Review and Meta-Analysis of Multiple-Session. *American Journal of Psychiatry, 166*, 293–301.

Rose, S., & Bisson, J. (1998). Brief early psychological interventions following trauma: a systematic review of the literature. *Journal of Traumatic Stress, 11*, 697-710.

Rose, S., Bisson J, C. R., & Wessely, S. (2005). Psychological debriefing for preventing post

traumatic stress disorder (PTSD). *Cochrane Database System Review,* New York: Oxford University Press.

Rothbaum, B., Kearns, M., Price, M., Malcoun, E., M., Davis, Ressler, K., Lang, D., and Houry, D. (2012). Early Intervention May Prevent the Development of Posttraumatic Stress Disorder: A Randomized Pilot Civilian Study with Modified Prolonged Exposure. *Biological Psychiatry, 72*(11), 957. doi: 10.1016/j.biopsych.2012.06.002

Rutter, M. (1987). Psychosocial resilience and protective mechanisms. *American Journal of Orthopsychiatry, 3*(57), 316-317-331.

Sanburn, J. (2015, June Rising violence. *Time*, *185*(21), 16.15).

SANE. (n.d.). Sexual Assault Response Team Retrieved Feb.12, 2014, from http://www.sane-sart.com

Sekula, L. S. (2005). The advance practice forensic nurse in the emergency department. *Topics in Emergency Medicine, 27*(1), 5-14.

Sexual Assault Nurse Examiner, Sexual Assault Response Team. (n.d.). Website offered by the Sexual Assault Resource Service with funding by the US Department of Justice, the Office for Victims of Crime, the US Department of Commerce, and the National Telecommunications and Information Administration.

Shalev, A. Y., Israeli-Shalev, Y., Peleg, T., Adessky, R., & Freedman, S. (2012). Prevention of posttraumatic stress disorder by early treatment results from the Jerusalem Trauma Outreach and Prevention study. *Archives of General Psychiatry, 69*(2), 166-176.

Shalev, A. Y. (Ed.). (2007). *PTSD – a disorder of recovery?* England: Cambridge University Press.

Shih, R., Schnell, T., Hambarsoomian, K., Belzberg, H., & Marshall, G. (2010). Prevalence of

Posttraumatic Stress Disorder and major depression after trauma center hospitalization. *The Journal of Trauma, Injury, Infection, and Critical Care, 69*(6), 1560-1566.

Stein, E., & Eisen, B. (1996). Helping trauma survivors cope: effects of immediate brief co-therapy and crisis intervention. *Crisis Intervention and Time-Limited Treatment, 3*(2), 113-113.

Stevens (2003). [Victimology Theory]. http://faculty.ncwc.edu/mstevens/300/300lecturenote01.htm.

Thompson, B., & Waltz, J. (2010). Mindfulness and experiential avoidance as predictors of posttraumatic stress disorder avoidance symptom severity. *Journal of Anxiety Disorders, 24*(409–415).

Thompson, R., Arnkoff, D., & Glass, C. (2011). Conceptualizing mindfulness and acceptance as components of psychological resilience to trauma. *Trauma, Violence, & Abuse,* 12(4), 220-235.

Tull, M., Hahn, K., Evans, S., Salters, & Pedneault, K., and Gratz, K. (2011). Examining the Role of Emotional Avoidance in the Relationship Between Posttraumatic Stress Disorder Symptom Severity and Worry. *Cognitive Behaviour Therapy,* 40(1), 5-14.

Tusaie, K., & Dyer, J. (2004). Resilience: a historical review of the construct. *Holistic Nurse Practitioner,* 18(1), 3-8.

Swets, J. (1988) *Measuring the accuracy of diagnostic systems*. Science 240, 1285-1293.

Ursano, R., Grieger, T., McCarroll, J., Van der Kolk, B., McFarlane, A., & Weisth, L. (1996). *Prevention of posttraumatic stress: consultation, training, and early treatment. Traumatic stress: the effects of overwhelming experience on mind, body, and society*. New York: Guilford Press.

Vassar, M., & Holzmann, M. (2013). The retrospective chart review: important methodological considerations. *Journal of Educational Evaluation for Health Professions. 10(12).*

Viano, E. (1992). *Critical Issues in Victimology (Part V)*. New York: Springer Publishing Company.

Von Hentig, H. (1948). *The Criminal and His Victims*. New Haven: Yale University Press.

Walker, K., Watson, K., & Li, C. (2006). A case study of therapeutic interventions as related by a person who was a victim of traumatic crime. *Sam Houston State University*.

Watson, J. (1988). New dimensions of human caring theory. *Nursing Science Quarterly,* 1(4), 175-181.

Watters, D. S. (1997). A study of the reliability and validity of the Triage Assessment Scale. DAI-A 58/08.

Werner, E., & Smith, R. (1992). *Overcoming the odds: High risk children from birth to adulthood*. Ithaca, NY: Cornell University.

Werner, E., & Smith, R. (1982). *Vulnerable but invincible: A study of resilient children*. New York: McGraw-Hill.

WHO. (2002). World Health Organization Report on Violence and Health. Geneva, Switzerland: WHO.

WHO. (1992). World Health Organization. *The ICD-10 Classification of Mental and Behavioural Disorders. Clinical descriptions and diagnostic guidelines.* Geneva: Switzerland: WHO.

Wick, J. M. (2000). Don't destroy the evidence. *Association of periOperative Registered Nurses Journal, 75*(5), 8O5-836.

Wilkerson, D. L., Kurtz, E. M., Lane, P., & Fein, J. A. (2005). The emergency department

approach to violently injured patient care: A regional survey. *Injury Prevention, 11*, 206-208.

Wilson, J. P. (1989). *Trauma, transformation and healing: An integration approval to theory, research and posttraumatic theory*. New York: Brunner/Mazel.

Witt, J. (2012). *SOC 2012*. New York: McGraw Hill.

Wohlfarth, T., Winkel, F.W., and van den Brink, W. (2002). Identifying crime victims who are at high risk for post-traumatic stress disorder: developing a practical referral instrument. *ACTA PSYCHIATRICA SCANDINAVICA, 105*, 451–460.

Woodhams, E. Memories are not silence: The trauma of witnessing and art making. A Phenomenological exploration of my lived experience as an artist.

Wooster. A., & Haines, T. (2004). Advanced statistics: Understanding medical record review (MRR) studies. *Advanced Emergency Medicine*. 11(2).

Yehuda, R. (2004). Risk and resilience in posttraumatic stress disorder. *Journal of Clinical Psychiatry, 65*(1), 29-36.

Zohar, J., Juven-Wetzler, A., Sonnino, R., Cwikel-Hamzany, S., & Balaban, E. (2011). New insights into secondary prevention in post-traumatic stress disorder. *Dialogues in Clinical Neuroscience,* 13(301-309).

Zohar, J., Sonnino, R., Juven-Wetzler, A., & Cohen, H. (2009). Can Posttraumatic Stress Disorder be prevented? *CNS Spectrums,* 14(1)44-51.

APPENDICES

Appendix A

Demographics form: Emergency Department

1. Ages of ED registered nurse staff

- >60
- 51-60
- 41-50
- 31-40
- <30

2. Education of ED registered nurse staff, highest level of nursing education completed

- PhD (Doctor of Philosophy in Nursing)
- DNP (Clinical Doctorate in Nursing)
- MSN Master of Science Degree in Nursing
- BSN (Bachelor of Science Degree in Nursing)
- Diploma in Nursing
- ADN (Associate of Science Degree in Nursing)

3. Gender

- Female
- Male

4. Number of years of practice as ED registered nurses

- Over 21 Years
- 11-20 Years
- 7-10 Years
- 3-6 Years
- 0-2 Years

5. Specific ED nursing protocols exist that address early interventions, psychological assessment for nursing care.

- No
- Yes
- Not sure

6. ED nurses are educated about the psychological assessment and care for victims of violent crime.

- No
- Yes
- Not sure

7. Continuing education for the psychological care of adult victims of violent crime is available and provided to the ED nurses?

- No
- Yes

8. Specific areas of education for adult victims of violent crime that is provided for the ED nurses.

- Nursing physical assessment and care
- Nursing psychological assessment and care
- Crisis intervention
- Family care and support
- Post Traumatic Stress Disorder (PTSD) risk assessment
- Communication skills (e.g. how to talk to victims of violence)
- Other (specify) _____.

9. Other professionals that collaborate with the ED nurse in the care of the victim of violent crime when admitted to the ED? (Select all that apply)

- Physician
- Physician's assistant
- ED nurse
- Nurse practitioner
- Forensic nurse specialist
- Sexual assault nurse examiner (SANE)

- Social worker
- Chaplain
- Psychologist/Psychiatrist
- Not the responsibility of health professionals
- Criminal justice/law enforcement
- Not sure
- Other (please specify) _____

10. In the ED, protocols exist for nursing assessment and treatment of victims of interpersonal violence (physical abuse, domestic violence, rape, sexual assault).

- No
- Yes
- Not sure

11. In the ED, clinical nurse specialists, SANE (Sexual Assault Nurse Examiners) care for victims of interpersonal violence (physical abuse, domestic violence, rape, and sexual assault).

- No
- Yes
- Not sure

Appendix B

Data Abstraction

Patient Chart ID code: _____
Chart Abstractor: _____
Data Abstraction Date: _____

Demographic and general background information

Yes	**No**	
____	____	ED Assessment tool specific to violent crime victims available
____	____	Protocol exist to guide assessment and care for victims of violent crime specific to assault and armed robbery (*not interpersonal violence*)
____	____	Forensic nurse(s) were present in this ED
____	____	Sexual Assault Nurse examiners were present in this ED
____	____	Support services were available in ED: social services, psychiatric services, spiritual services

The following characteristics existed during dates included for chart review (*dates*):
Number of RNs in ED _____
Education of RNs _____
Years of experience of RNs _____

Yes	**No**	**Inclusion Criteria Emergency Department documents (Yes to one or more of the following*)**
____	____	*Emergency department registered nurses' notes
____	____	*ED staff RN or
____	____	*ED SANE nurse or
____	____	*ED forensic nurse
____	____	Initial admission to the ED for trauma care from a violent crime
		(If **No,** this chart is excluded)
____	____	18 years of age and older as of _____ (If **No,** this chart is excluded)

Select client gender that applies to this chart ____ Male ____ Female

Violent crime:

Yes **No**

____ ____ Adult violent crime survivor alive on admission and discharge (If **No**, this chart is excluded/ineligible for this review)

____ ____ Robbery (select violent crime that applies)

____ ____ Aggravated assault (select violent crime that applies)

Yes **No** **(**If **Yes**, this chart is excluded/ineligible for this review)

____ ____ Murder

____ ____ Non-negligent manslaughter

____ ____ Interpersonal violence (forcible rape, sexual assault domestic violence, or child abuse)

Note: Examples of violent crime include four offenses: murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault (Federal Bureau of Investigation, 2011).

Registered nurses' notes: Emergency Department documents

Affective Domain documented in nursing notes (Myer & Conte, 2006)

Yes **No**

____ ____ Anger/Hostility
____ ____ Anxiety/Fear
____ ____ Sadness/Melancholy
____ ____ Calm/Composed
____ ____ Patient Affect not charted in nursing notes

Behavioral Domain documented in nursing notes (Myer & Conte, 2006)

Yes **No**

____ ____ Approach
____ ____ Avoidance
____ ____ Immobility
____ ____ Patient behavior not charted in nursing notes

Cognitive Domain documented in nursing notes (Myer & Conte, 2006)

Yes **No**

____ ____ Physical transgression
____ ____ Psychological transgression
____ ____ Social Relationship transgression
____ ____ Moral/Spiritual transgression
____ ____ Concentration intact, no impairment noted
____ ____ Patient cognitive domain not charted in nursing notes

Support resources documented **in nursing chart:**

Yes	No	
____	____	Family present or contacted
____	____	Social resources present or referral
____	____	Psychiatry or Psychology present or referral
____	____	Spiritual support present or referral
____	____	Legal services present or contacted
____	____	Law enforcement present or contacted

Appendix C

Permission to use Triage Assessment System

From: Myer, Rick A Sent: Thu 10/29/2015 10:33 AM

To: Barbara Conn

Cc:

Subject: RE: Rick A. Myer

View As Web Page

Barbara

Great to hear from you and that you are starting to work on your dissertation.

You have my permission to use the Triage Assessment Form for your data collection. I would be very interested in learning what you find out.

Let me know if there is anything I can do to be helpful.

Rick

Appendix D

Triage Assessment System: Crisis Intervention (Revised)

Client Name: _____Time/Date: _____

Crisis Worker:_____ Contact Type: _____ Phone: _____ Office ____ Field

Crisis Event: _____

_____

_____

Disposition _____

_____

_____

Observations (Check as many that apply)

__ off medication
__ medication not effective ***
__ hallucinating *** (__ smells __sights __sounds __ touch)
___ bizarre behavior/ appearance
___ poor hygiene
___ absurd, illogical speech ***
___ paranoid/suspicious thoughts ***
___ flashbacks, loss of reality contact
___ under the influence of mood altering substance
___ other (explain)

___ oppositional defiant to verbal suggestions
___ aggressive gestures *
___ reckless behavior
___ self injurious behavior
___ physically violent *
___ verbal threats to self or others
___ suicidal/homicidal thinking/verbalizing
___ suicidal/homicidal gestures/behaviors *
___ suicidal/homicidal plan clear *

___ uncooperative
___ flat affect
___ impulsivity
___ hysterical
___ confusion
___ unable to follow simple directions
___ unable to control emotions
___ cannot recall personal information (phone, address)
___ situation perceived as unreal (spectator)
___ nonresponsive ***

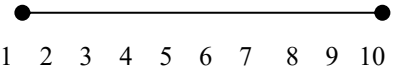
Notes: _____

_____

****** psychiatric evaluation recommended * hold for law enforcement officers or EMTs***

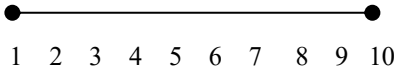
Triage Assessment (X = Initial Assessment/ O = Terminal Assessment)

Affective
__ Anger __ Fear __ Sadness



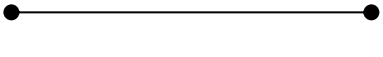
1 2 3 4 5 6 7 8 9 10

Behavioral
__ Approach __ Avoidance __ Immobile



1 2 3 4 5 6 7 8 9 10

Cognitive
__ Transgression __ Threat __ Loss



1 2 3 4 5 6 7 8 9 10

___ Physical ___ Psychological ___ Relationship ___ Moral/Spiritual

Initial Total Score: _____ Terminal Total Score: _____ (if used)

SEVERITY SCALES
Check those that apply

	1	2 3	4 5	6 7	8 9	10
	No Impairment	**Minimal Impairment**	**Low Impairment**	**Moderate Impairment**	**Marked Impairment**	**Severe Impairment**
AFFECTIVE	○ Feelings are appropriate.	○ Affect appropriate to situation.	○ Affect appropriate to situation.	○ Affect may be incongruent with situation.	○ Affect obviously incongruent with situation.	○ Hysteria or flat affect resulting in decompensation or depersonalization.
	○ Stable mood.	○ Brief periods during which mood is experienced slightly more intensively than situation warrants.	○ Mood is experienced slightly more intensely than situation warrants.	○ Mood is experienced noticeably more intensely than situation warrants.	○ Mood dictated by situation and pervades all areas of life.	○ Mood presents a danger to self and/others.
	○ Responses to questions/requests are calm and composed.	○ Responses to questions/requests are emotional but composed.	○ Responses to questions/requests vary from rapid and agitated to slow and subdued.	○ Responses to questions/requests are emotionally volatile or beginning to shut down.	○ Responses to questions/requests noncompliant due to interference of emotions.	○ Cannot respond to questions/requests because of interference of emotions.
BEHAVIORS	○ Coping behaviors appropriate to crisis event.	○ Coping behaviors mostly effective but not organized.	○ Occasional use of ineffective coping behaviors.	○ Coping behaviors may be ineffective and maladaptive.	○ Coping behaviors are likely to intensify crisis.	○ Coping behaviors are totally ineffective and accelerate the crisis.
	○ Performing tasks necessary for daily functioning unimpeded.	○ Performing tasks necessary for daily functioning minimally affected.	○ Performing tasks necessary for daily functioning done with effort.	○ Performing tasks necessary for daily functioning is noticeably compromised.	○ Performing tasks necessary for daily functioning markedly absent.	○ Unable to perform even simple tasks necessary for daily functioning.
	○ Threat or danger nonexistent.	○ Behavior demonstrates frustration but is nonthreatening.	○ Behaviors minimal threat to self or others.	○ Behavior is a potential threat to self or others.	○ Behaviors are increasingly impulsive, uncontrolled, and may be harmful to self and others.	○ Behaviors are highly destructive possibly to cause injury/death to self or others.
	○ Behavior is stable and non-offensive.	○ Behaviors mostly stable and non-offensive.	○ Behavior becoming unstable and offensive.	○ Upon request, behaviors can be controlled with effort.	○ Behavior is very difficult to control even with repeated requests.	○ Behavior is erratic and unpredictable.
COGN	○ Concentration intact.	○ Client's thought may drift to crisis event but focus of thoughts is under volitional control.	○ Occasional disturbance of concentration.	○ Intrusive thoughts of crisis event with limited control with frequent disturbance of concentration	○ Client plagued by intrusiveness of thoughts regarding crisis event.	○ Gross inability to concentrate on anything except crisis event

I T V E	○ Client displays normal problem-solving and decision-making abilities.	○ Problem-solving and decision-making abilities minimally affected.	○ Client experiences recurrent difficulties with problem-solving and decision-making abilities.	○ Problem-solving and decision-making abilities affected by obsessiveness, self-doubt, and confusion.	○ Appropriateness of client's problem-solving and decision making adversely affected by obsessiveness, self-doubt, and confusion.	○ Client so afflicted by obsessiveness, self-doubt, confusion that problem-solving and decision-making skills have "shut down."
	○ Client's perception and interpretation match with reality of situation.	○ Client's perception and interpretation of event substantially matches reality.	○ Client's perception and interpretation of crisis event may differ in some aspects with reality of situation.	○ Client's perception and interpretation of crisis event may differ noticeably with reality of situation.	○ Client's perception and interpretation of crisis event may differ substantially with reality of situation.	○ Client's perception and interpretation of the event as not real and or reality of crisis denied.
	○ Thinking is predictable and intact.	○ Thinking is purposeful yet muddied by crisis event.	○ Thinking is puzzled and at times lacking purpose.	○ Thinking is confused and not focused.	○ Thinking is non-sequential, nonlinear, with increasing non-lucidity.	○ Reality so altered thinking appears to be psychotic.
	○ Decisions are considerate of others.	○ Decisions may not be considerate of others.	○ Decisions are inconsiderate of others.	○ Decisions are offensive and antagonistic of others	○ Decisions have the potential to be harmful to self or others.	○ Decisions are a clear and present danger to self and/or others.

Appendix E

Code Manual

Study: Emergency Department Nursing Psychological Care (Early Crisis Intervention with Adult Victims of Violent Crime

1. Chart ID
   Definition: ID number assigned for each chart solely for purposes of study by PI at the time of enrollment. All records will be coded with a number to be anonymous. The numbers will be a sequence from 1 to 113.
   Best source: Study enrollment log; found in locked file cabinet of medical record office.

2. Subject medical record number
   Definition: Hospital medical record number, the original chart identification that is stored in secure computer file at Medical Center Medical Records Department.
   Best source: Number on medical record pages

3. Records to be reviewed
   Definition: Emergency department records; the initial ED admission registered nurses' notes for adult survivors of violent crime. Only records in existence at the time of IRB review and approval will be accessed for review from study. IRB approval date July 30, 2018.
   Best source: Medical Center Medical Records Department

4. Initial ED admission
   Definition: First ED admission for assessment and care for a violent crime trauma. Excluded are previous admission(s) for care from the same violent crime event.
   Best source: Medical record, admission notes

5. ED Registered nurses' notes
   Definition: Nursing notes documented by full and part-time ED RN staff, SANE nurses, forensic nurses, and nursing administrators. Excluded are non-registered nurse staff.
   Best sources: Medical record, Emergency Department registered nursing notes

6. Violent crime survivor
   Definition: A survivor of robbery and/or aggravated assault.
   Exclusion criteria: deceased victims of murder or manslaughter victims of non-negligent manslaughter or forcible rape; victims of interpersonal violence (abuse, domestic violence, rape, sexual assault). (Violent crime is defined by the Federal Bureau of Investigation (2010) as murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault.).
   Best source: Medical record, history of subject's admission to ED

7. Subject age
   Definition: 18 years of age or older; exclusion, 18 years of age or younger
   Best source: Medical record, admission demographic data

8. Subject Gender
   Definition: Male or female
   Best source: Medical record, admission demographic data

9. Affective Domain
   Definition: assessment documented in nursing notes as anger/hostility, anxiety/fear, sadness/melancholy, or calm/composed (Myer & Conte, 2006), or no impairment noted subject's affective domain not charted in nursing notes.
   Best source: Nursing notes

10. Behavioral Domain
    Definition: assessment documented in nursing notes as approach avoidance, immobility, (Myer & Conte, 2006) or no impairment noted in subject's behavioral domain or subject behavior not charted in nursing notes.
    Best source: Nursing notes

11. Cognitive Domain
    Definition: assessment documented in nursing notes as physical transgression, psychological transgression, social relationship transgression, moral/spiritual transgression, concentration intact (Myer & Conte, 2006), or no impairment noted or subject's cognitive domain not charted in nursing notes.
    Best source: Nursing notes

12. Support Resources
    Definition: assessment documented in nursing notes as family present or contacted, social resources present or referral, psychiatry or psychology present or referral, spiritual support present or referral, legal services present or contacted, and law enforcement present or contacted or support resources not charted in nursing notes.
    Best source: Nursing notes.

    Data abstraction details:

    Review response: 1 yes, 2 no, 3 not documented

    Chart data abstraction categories:

    A. Chart number 1-113
    B. Age over 18 years of age
    C. Admission date before July 30 2018
    D. Survivor of violent crime

E. Violent Crime-armed robbery
F. Violent Crime-aggravated assault
G. RN charting notes
H. Affective Domain: anger/hostility
I. Affective Domain: anxiety/fear
J. Affective Domain: sadness/melancholy
K. Affective Domain: calm/composed
L. Behavioral Domain: approach avoidance
M. Behavioral Domain: immobility
N. Cognitive Domain: physical transgression
O. Cognitive Domain: psychological transgression
P. Cognitive Domain: social relationship transgression
Q. Cognitive Domain: moral/spiritual transgression
R. Cognitive Domain: concentration intact
S. Support Resources: family present
T. Support Resources: family contacted
U. Support Resources: social resources present
V. Support Resources: social resources referral
W. Support Resources: psychiatry or psychology present
X. Support Resources: psychiatry or psychology referral
Y. Support Resources: spiritual support present
Z. Support Resources: spiritual support referral
AA. Legal services present
BB. Legal services contacted
CC. Law enforcement present
DD. Law enforcement contacted

Appendix F

Data Supplement

Variable	Results	Assumptions met
Anger	χ^2 (5) = 1.388, p = .852	Yes
Anxiety	χ^2 (5) = 2.548, p = .636	Yes
Sad	χ^2 (5) = 1.247, p = .870	Yes
Calm	χ^2 (5) = 7.494, p = .112	Yes
Avoidance	χ^2 (5) = 5.319, p = .256	Yes
Immobility	Not applicable	No
Physical transgression	χ^2 (5) = 7.078, p = .132	Yes
Psych transgression	χ^2 (5) = 1.713, p = .788	Yes
Social transgression	χ^2 (5) =12.621, p < .05	Yes
Concentration	Not applicable	No
Family presence	χ^2 (5) = 2.487, p = .647	Yes
Social resources	χ^2 (5) = 6.701, p = .153	Yes
Mental resources	χ^2 (5) = 4.969, p = .290	Yes
Spiritual resources	χ^2 (5) = 5.534, p = .237	Yes
Legal resources	χ^2 (5) = 1.565, p = .815	Yes
Law enforcement resources	χ^2 (5) = 5.017, p = .286	Yes